

25th October 2013

NUCLEAR DETONATIONS IN URBAN AND SUBURBAN AREAS (updated 31 December 2013)

In the previous post on this blog, [The exaggerated urban effects of nuclear weapons: proof tested civil defence](http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html) [http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html], we reviewed the evidence for shielding of thermal and initial nuclear radiation effects by city urban and suburban landscapes (concrete jungles), and compared modern cities with Hiroshima and Nagasaki in August 1945.

UK National Archives: HO 225/54 and CAB 21/4053

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Some Aspects of Shelter and Evacuation Policy to meet H-Bomb threat

1 Introduction

At the present time, with such air raid shelters as are at present in existence and allowing for the planned evacuation of the priority classes, the deaths from a single hydrogen bomb (assumed to have a power a thousand times that of the Nagasaki atomic bomb) on London would be nearly $2\frac{1}{2}$ million, and from five bombs, one each on London, Birmingham, Liverpool, Manchester and Glasgow over 6 million. The first object of Civil Defence must be to prepare a scheme to reduce this figure. No attempt is made in this note to plan such a scheme, but the effect on casualties of certain arbitrary shelter and evacuation measures is discussed in order to indicate the order of magnitude of the reduction which a properly worked out scheme might be expected to achieve.

2 Method of Estimating Deaths

The deaths from a nominal atomic bomb among a population of standard density (43.56 per acre) all in houses have been estimated (CDJPS(EA)(48)14

<http://1.bp.blogspot.com/-34jTHNc6sP0/UroBnc3bUWI/AAAAAAAAAEIQ/ngs3iw-9zIA/s1600/Edward+Leader-Williams+Secret+1954+H+bomb+survival+report.JPG>

Table 4

Deaths from 1000N bombs after evacuation of 5 mile radius circle for London and 3 mile radius for other cities. Evacuees assumed accommodated in surrounding annulus where they and the original inhabitants are provided with shelter having a safety rating of 80.

20 Mt

City	Position of bomb		
	Central	2 miles from centre	In position to cause maximum deaths
London	0	0	518,000
Birmingham	0	159,000	256,000
Glasgow	0	171,000	247,000
Liverpool	0	174,000	247,000
Manchester	0	164,000	257,000
Total	0	668,000	1,525,000

Table 5

Deaths from 1000N bombs after evacuation of 5 mile radius circle for London and 3 mile radius for other cities. Evacuees assumed accommodated in surrounding annulus where they and the original inhabitants are provided with shelter with a safety rating of 90.

20 Mt

[<http://2.bp.blogspot.com/-VzpiC7Kj3QI/UroCEG1iOdI/AAAAAAAAEiY/pjBfiB8Q4qQ/s1600/Edward+Leader-Williams+Secret+1954+H+bomb+survival+report+b.JPG>]

Table 5

Deaths from 1000N bombs after evacuation of 5 mile radius circle for London and 3 mile radius for other cities. Evacuees assumed accommodated in surrounding annulus where they and the original inhabitants are provided with shelter with a safety rating of 90.

20 Mt

City	Position of bomb		
	Central	2 miles from centre	In position to cause maximum deaths
London	0	0	261,000
Birmingham	0	56,000	155,000
Glasgow	0	64,000	152,000
Liverpool	0	67,000	152,000
Manchester	0	62,000	151,000
Total	0	249,000	671,000

It will be seen from Tables 4 and 5 that, with this scheme of total evacuation of a central area and shelter in the surrounding annulus, a central bomb causes no deaths at all. Clearly, however, the enemy would be aware of our provisions and might well choose to drop his bombs where they would cause maximum casualties. On average, and without allowing for local concentrations which would be bound to occur in the "reception annulus", this would be at about 7 miles from the centre in the case of London and about 4 miles for the other cities. The average deaths from bombs in these worst positions are

[\[http://3.bp.blogspot.com/-jNOCxh4AD08/UroFJ59i8bI/AAAAAAAAAEIk/MWL5eg-KI_o/s1600/Edward+Leader-Williams+Secret+1954+H+bomb+survival+report+c.JPG\]](http://3.bp.blogspot.com/-jNOCxh4AD08/UroFJ59i8bI/AAAAAAAAAEIk/MWL5eg-KI_o/s1600/Edward+Leader-Williams+Secret+1954+H+bomb+survival+report+c.JPG)

Above: by evacuating the central areas of cities near the fireball and crater, and sheltering the evacuated people from the heat (which is largely stopped by the city skyline shadowing effect anyway, except for upper floors of very high buildings, facing the fireball), blast and fallout, *all casualties could be avoided, in accurately-placed 20 megaton surface bursts on cities*

[\[https://archive.org/stream/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat/Some%20aspects%20of%20shelter%20and%20evacuation%20policy%20to%20meet%20the%20H%20bomb%20threat#page/n0/mode/2up\]](https://archive.org/stream/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat/Some%20aspects%20of%20shelter%20and%20evacuation%20policy%20to%20meet%20the%20H%20bomb%20threat#page/n0/mode/2up) .

With the much smaller MIRV warheads (around 200 kt) or terrorist/clandestine threat (around 10 kt) today, the situation is even more positive as based on a re-evaluation of civil defence in Hiroshima and Nagasaki [\[https://archive.org/stream/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat/Some%20aspects%20of%20shelter%20and%20evacuation%20policy%20to%20meet%20the%20H%20bomb%20threat#page/n5/mode/2up\]](https://archive.org/stream/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat/Some%20aspects%20of%20shelter%20and%20evacuation%20policy%20to%20meet%20the%20H%20bomb%20threat#page/n5/mode/2up) .

(Since blast waves travel over large distances averaging only about a quarter of a mile per second, there is plenty of time to "duck and cover" to avoid blast wind displacement and flying debris.) On 1 September 1939, two days before Britain declared war, it evacuated children from London.

This was partly about sending a deliberate political message or "signal" to the enemy about the seriousness of the ultimatum, and partly as partial insurance against a surprise "knockout blow" air strike. Herman Kahn made the point in 1976 congressional hearings (included in the appended documents to the report linked [here](https://archive.org/details/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat) [\[https://archive.org/details/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat\]](https://archive.org/details/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat)) that evacuation and improvised shelter are more credible than surprise attacks, because we have a protected second-strike retaliation capacity (submarines at sea) which takes away any incentive for a nuclear 9/11 or Pearl Harbor

type surprise attack. **Leader-Williams concludes that even in the worst case, the fatalities in 100 megaton nuclear attack on Britain that tried to target the evacuated (dispersed) population could be kept to 2% of the population by a combination of shelters and evacuation from the crater and fireball or severe blast area, leaving 98% of the population alive.**

This declassified Secret 1954 British scientific report (linked here), *Some Aspects of Shelter and Evacuation Policy To Meet H Bomb Threat*, by Edward Leader-Williams of the U.K. Home Office Scientific Advisory Branch, points out how to use a combination of city centre evacuation and blast/fallout sheltering of the evacuated personnel to avoid casualties or coercion in a crisis from five 20 megaton thermonuclear bombs (100 megatons total). Other relevant declassified documents are appended. The copy of this secret turned into PDF format was the one issued to William Strath (Cabinet War Plans Secretariat), [<https://archive.org/stream/SomeAspectsOfShelterAndEvacuationPolicyToMeetTheHBombThreat/Some%20aspects%20of%20shelter%20and%20evacuation%20policy%20to%20meet%20the%20H%20bomb%20threat#page/n0/mode/2up>] who used it in his March 1955 report "Defence Implications of Fall-Out from a Hydrogen Bomb", which Strath and Sir Normal Brook discussed with Defence Secretary Harold Macmillan on 24 March 1955 (the following quotations from the meeting report are from U.K. National Archives file CAB 130/109, "GEN.491/1st Meeting, Defence Implications of Fall-Out from a Hydrogen Bomb, 24 March 1955"): [<http://dspace.cigilibrary.org/jspui/bitstream/123456789/11658/1/UK%20Nuclear%20History%20Working%20Paper%202%20UK%20Civil%20Defence%20and%20Nuclear%20Weapons%201953%201959.pdf>]

[<http://dspace.cigilibrary.org/jspui/bitstream/123456789/11658/1/UK%20Nuclear%20History%20Working%20Paper%202%20UK%20Civil%20Defence%20and%20Nuclear%20Weapons%201953%201959.pdf>]

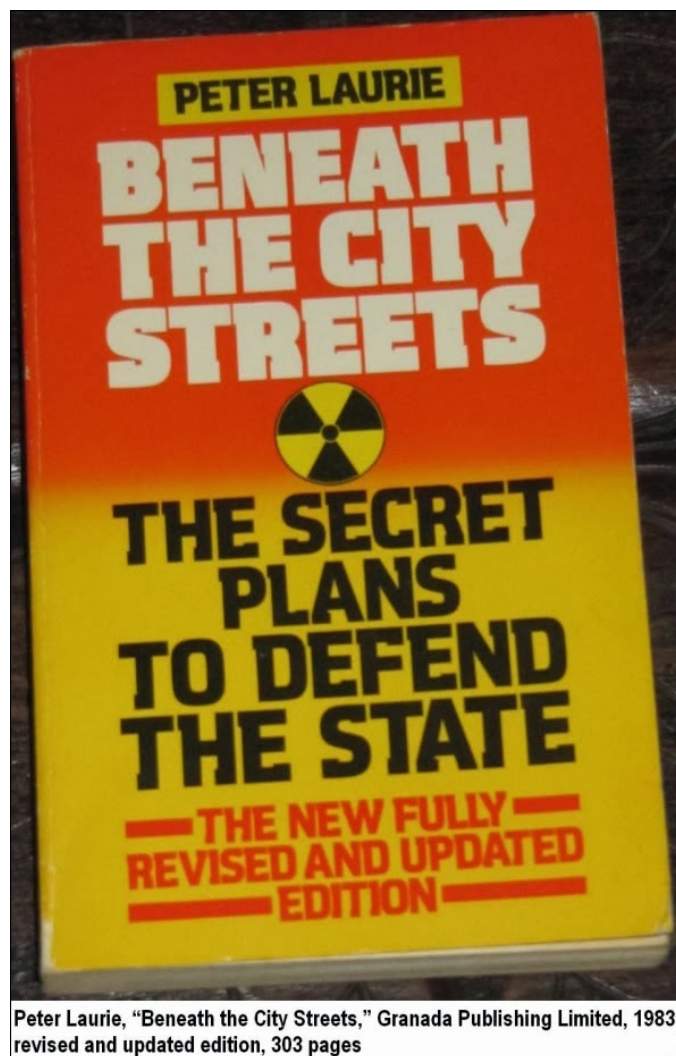
"The Meeting first examined the report's proposals on evacuation which were based on the promise that a wider distribution of the population would reduce the number of casualties. ... The meeting were informed that, while it was not possible to provide effective shelter within the vicinity of a hydrogen bomb, it would be practicable to provide adequate shelter against fall-out beyond the area of devastation by blast. Scientific thinking was at present moving towards the view that brick-built houses would give better protection against fallout than had previously been thought. A trench with overhead earth cover would make more effective shelter but it would be a damp and uncomfortable place in which to have to stay until the radio-activity had abated. It was hoped that future research would devise a refuge room giving adequate protection which could be constructed in the ordinary house. If this could be done, house-holders could be advised what steps they could themselves take to secure satisfactory protection." [<http://dspace.cigilibrary.org/jspui/bitstream/123456789/11658/1/UK%20Nuclear%20History%20Working%20Paper%202%20UK%20Civil%20Defence%20and%20Nuclear%20Weapons%201953%201959.pdf>]

The Strath report, far from condemning "Protect and Survive" type improvised civil defence for personnel evacuated from the centre of target cities, did the very opposite. This is directly contrary to what many British political academics and historians have chosen to "read into" the Strath report (see [here](http://www.tandfonline.com/doi/abs/10.1080/0734151032000123981?journalCode=ghat20#.UrqhAtJdWKI) [<http://www.tandfonline.com/doi/abs/10.1080/0734151032000123981?journalCode=ghat20#.UrqhAtJdWKI>] and [here](http://www.palgrave.com/PDFs/9780230205420.pdf) [<http://www.palgrave.com/PDFs/9780230205420.pdf>])

Edward Leader-Williams, an engineer, was Lord Baker's assistant during the invention and testing of the indoor "Morrison shelter" in World War II, which proved vital and highly effective against V1 attacks. [<http://journals.cambridge.org/action/displayAbstract;jsessionid=9E55E653E91C220498B5DE0FB34C6058.journals?fromPage=online&aid=7805718>]

[<http://journals.cambridge.org/action/displayAbstract;jsessionid=9E55E653E91C220498B5DE0FB34C6058.journals?fromPage=online&aid=7805718>] In 1955, Leader-Williams drafted the first U.K. Home Office "Protect and Survive"-type indoor "inner refuge" improvised fallout shielding advice, as documented in detail in Dr Smith's

paper, "Architects of Armageddon: the Home Office Scientific Advisers' Branch and civil defence in Britain, 1945-68", *British Journal for the History of Science*, vol. 43 (2010), pp. 149-80 [<http://journals.cambridge.org/action/displayAbstract;jsessionid=9E55E653E91C220498B5DE0FB34C6058.journals?fromPage=online&aid=7805718>] . (See also discussion linked [here](http://glasstone.blogspot.co.uk/2006/08/nuclear-weapons-1st-edition-1956-by.html) [<http://glasstone.blogspot.co.uk/2006/08/nuclear-weapons-1st-edition-1956-by.html>] .)



Peter Laurie, "Beneath the City Streets," Granada Publishing Limited, 1983 revised and updated edition, 303 pages

The impact of latent nuclear war on democracy 273

Doubtless no nuclear government is any more anxious to go to nuclear war than its citizens. But that is not the point. By invoking the spectre of counter-city war, the government can get larger taxes for military spending than they otherwise could, they can spend them in secret with little or no informed public interference, and by spending these huge sums it obtains vast amounts of influence, jobs for supporters, power ...

... Russia's H-bomb is money in the bank

to them now.

274

PETER LAURIE,
Beneath the City Streets 1979 revised edition

It is odd how in this blackmail operation pacifists work directly with the military. For instance, my conclusions in Chapter 8 that it is not impossible that Britain might survive a nuclear war, and that in some ways it might have some beneficial effects, were received with horror by the more liberal, anti-war critics. They take the position that nuclear war is so frightful it is heresy even to suggest that it may not be the end of all things. Mr Sartori wrote in *Nature* (8 January 1971): 'Fostering such complacency can only make the public more receptive to the idea that initiation of a nuclear war by the West is a rational possibility to be entertained under some circumstances.'

But in any case, my aim in presenting these calculations is not to make nuclear war more likely, but to refute those who believe that it is the ultimate catastrophe. ...

Every time a liberal, humane person says nuclear war is so frightful it must not even be discussed, the military smile, because to the ordinary taxpayer the only alternative is more spending on defence.

[[http://3.bp.blogspot.com/-](http://3.bp.blogspot.com/-x0p8zpDYJ4U/UrSoffGmj5I/AAAAAAAAEIA/Dv8G5dDHxU4/s1600/Peter+Laurie+Beneath+the+city+streets+cover.JPG)

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Above: Peter Laurie's 1970 book (revised 1979 and 1983) alleged that CND's and *Nature* journals published emotion-based "defence" of exaggerations of nuclear attacks of nuclear war and dismissals of cheap and effective civil defence actually lay behind the arms race (the stockpiling of weapons at immense expense): because **if you refuse to defend yourself against fallout you must instead pile up more and more weapons!** (The man who refuses to wear a flak jacket in case it doesn't work, must instead trust on deterring attacks by carrying more impressive weapons.) Of course, like the fact-intolerant idealists like the 1937 "Cambridge Scientists Anti-War Group", what CND *claimed* it was doing during the cold war was somehow reducing the threat by scare-mongering for pacifism. It seems to still be taboo to even cite Paul Mercer's debunking of this allegation in his well-researched 1986 book, *Peace of the Dead: the Truth Behind the Nuclear Disarmers* (Foreword by Lord Chalfont). This book documents the funding and control of communist CND committee members by the Moscow Kremlin-controlled "World Peace Council". One ignorant abusive bigot who refused to read the book even claimed that the *title* of the book implied a prejudice, when in fact it just summarized the conclusion the author arrived at after years of infiltration of CND's head office!

Building No.: 24. Coordinates: 5H. Distance from (GZ): 1,300, (AZ): 2,400.
 NAME: Bank of Japan, Hiroshima branch.
 CONSTRUCTION AND DESIGN
 Type: Reinforced-concrete frame (steel core).
 Walls: Reinforced concrete (12-inch) and stone (6-inch).
 Floors: Reinforced concrete.
 Framing: Reinforced concrete.

REMARKS: Fire only in room at southwest corner of second story and in entire third story. No fire in building right after bomb, but after 1000 hours. Fire in room in second story extinguished with water buckets.



GROUND ZERO

U.S. Strategic Bombing Survey report 92



U. S. STRATEGIC BOMBING SURVEY

PHYSICAL DAMAGE DIVISION

Building No.: 59. Coordinates: 5I. Distance from (GZ): 4,100, (AZ): 4,500.

NAME: Geibi Bank Co., Hiroshima Branch (in use at time of bomb as the Higashi Police Station).

CONSTRUCTION AND DESIGN

Type: Reinforced-concrete frame.

Walls: 8-inch reinforced concrete monolithic—medium window.

Floors: Reinforced-concrete beam and slab—parquet and tile.

Framing: Reinforced-concrete beam and slab.

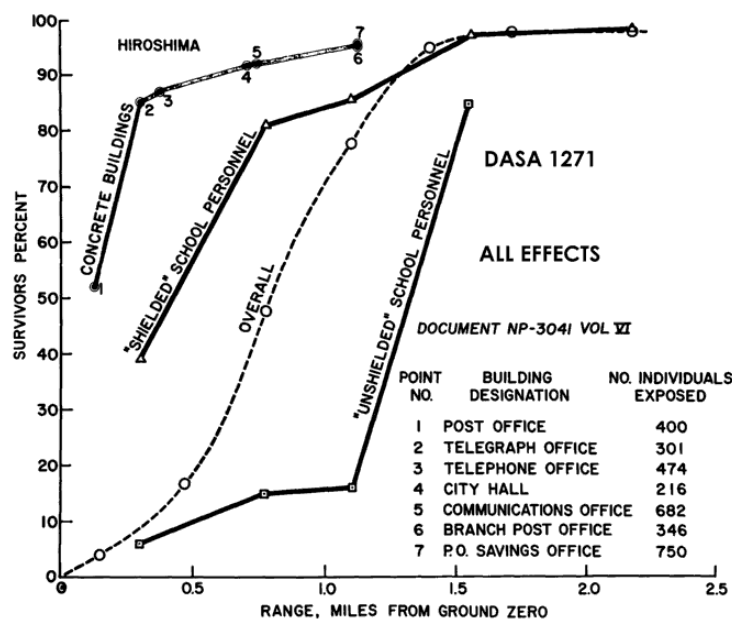
EXTENT OF FIRE: Total floor area: 16,200 square feet. Floor area burned: 0 square feet; 0 percent (after blast damage).

REMARKS: Sparks from south exposure ignited few pieces of furniture in first and third stories and cotton blackout curtains in first story about 1030 hours. Fires were extinguished with water buckets by people inside. Negligible fire damage resulted. Some of exposing buildings had just been removed prior to the bomb.

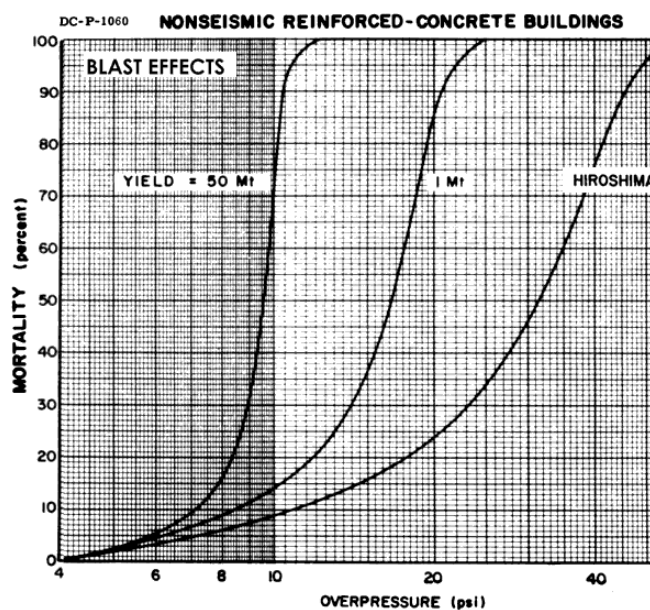


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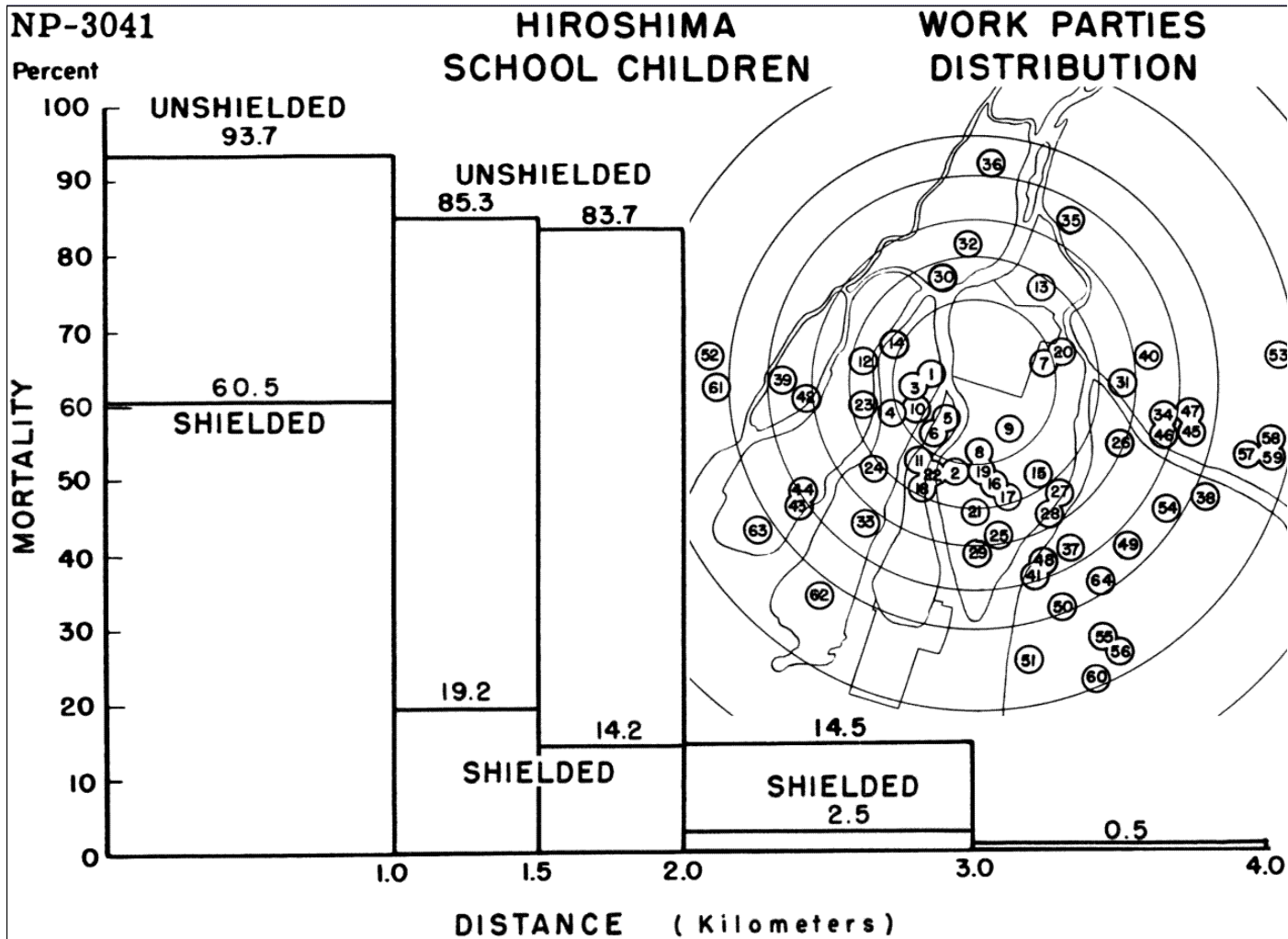
Ashley W. Oughterson, et al., *Medical Effects of Atomic Bombs*, NP-3036 to NP-3041 (Vols. I-VI), Army Institute of Pathology, 1951.



L. Wayne Davis, Donald L. Summers, William L. Baker, and James A. Keller, *Prediction of Urban Casualties and the Medical Load from a High-Yield Nuclear Burst*, DC-P-1060, The Dikewood Corporation

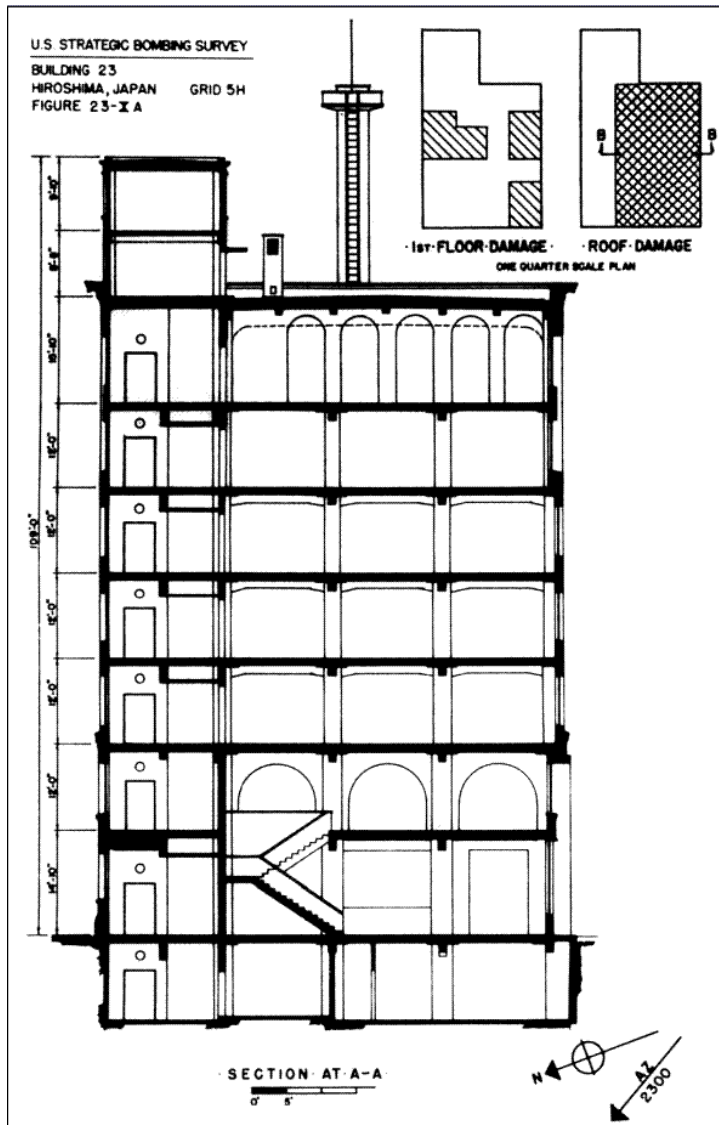
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U. S. STRATEGIC BOMBING SURVEY

PHYSICAL DAMAGE DIVISION

Building No.: 23. Coordinates: 5H. Distance from (GZ): 1,200; (AZ): 2,300.

NAME: Fukoku Building.

CONSTRUCTION AND DESIGN

Type: Steel core reinforced-concrete frame.

Number of stories: 7 and basement. JTG class: E1.

Roof: Reinforced-concrete beam and slab (steel core).

Partitions: Reinforced concrete.

Walls: Reinforced concrete, stone trim.

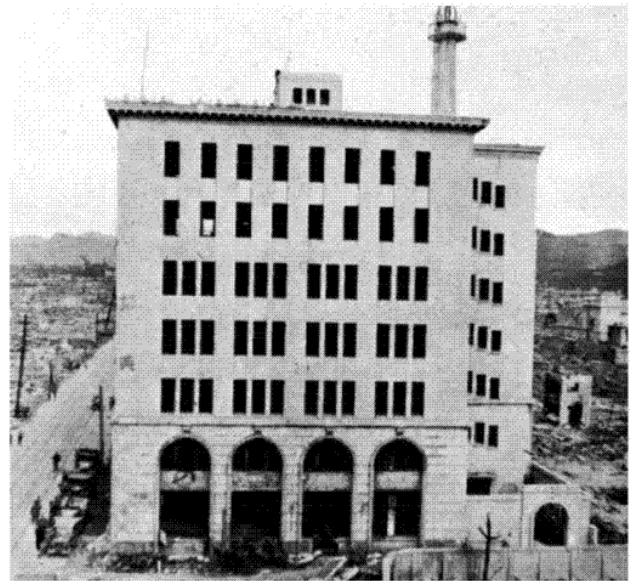
Floors: Reinforced concrete, wood finish.

Framing: Reinforced concrete.

Window and door frames: Metal. Ceilings: Metal lath and plaster.

Condition, workmanship, and materials:

Compare with usual United States buildings:



[<http://4.bp.blogspot.com/-ldvRnyYjRg/UpjEc4EdFbI/AAAAAAAAEDk/syfOejWpt5g/s1600/Hiroshima+1.GIF>]

Above: Hiroshima had few modern Western-standard concrete buildings and they survived with relatively minor damage. The 50% casualty rate for the unwarned people of Hiroshima in concrete buildings occurred at just 0.12 mile from ground zero, compared to 1.3 miles for school students outside clearing firebreaks, many of whom - in survivor accounts - actually moved out of life-saving shadows and into an unobstructed radial line of sight in order to watch the B-29 aircraft when it dropped the bomb! The ratio of these median lethal areas is 120, so in concrete buildings the overall casualty rate is 120 times lower than for people standing outside without any shadowing. The burned out areas were filled with overcrowded wooden frame building containing breakfast (8:15 am) charcoal braziers which mostly burned down when the firestorm peaked 2-3 hours later (after the evacuation, as proved by survival rate data of 50% for concrete buildings at just 0.12 mile from ground zero). Survivors in concrete buildings successfully used water buckets to put out burning firebrands blown into windows from the "firestorm" of wooden burning houses outside, which peaked at 2-3 hours after the bomb (source: USSBS report 92, vol 2). CND-type propaganda falsely uses the 19% humidity (DASA-1251) 1953 *Encore* Nevada desert test ignition data to claim the firestorm was instantaneous with the thermal flash. The actual humidity in Hiroshima when the bomb fell was 80%, over four times greater than in the 1953 Nevada test (table VI of William E. Loewe, Lawrence Livermore National Laboratory report UCRL-90258, 1983).

Modern cities have taller concrete buildings which oscillate more in blast waves, absorbing energy from the blast wave and thereby attenuating it, because energy is conserved.

[<https://archive.org/details/TheEffectsOfTheAtomicBombOnHiroshima>]

Volume 2, Issue 3 of DTRIAC's (U.S Defense Threat Reduction Information Analysis Centre) journal, *The Dispatch*, 2013 is now available [http://cms.dtra.mil/docs/dtriac/dispatch_v3_i2_web.pdf?sfvrsn=0] , and has several highly relevant articles on the effects of nuclear detonations air blast effects in urban areas, a subject whose origins go back to WWII when Dr William Penney determined that the air blast overpressure in Hiroshima and Nagasaki decayed faster with distance than in the unobstructed Maralinga and Nevada deserts during nuclear tests, due to the irreversible loss of blast energy from the Mach front as it causes damage. The energy taken out of the blast wave by a "reflecting" wall is product of the applied force (net pressure multiplied by area) and the distance the wall moves in the direction of the applied force. If the wall collapses, the energy acquired by the wall fragments (the kinetic energy of the debris) is taken out of the blast wave. [<http://glasstone.blogspot.co.uk/2006/03/samuel-glasstone-and-philip-j-dolan.html>] Energy must be conserved!

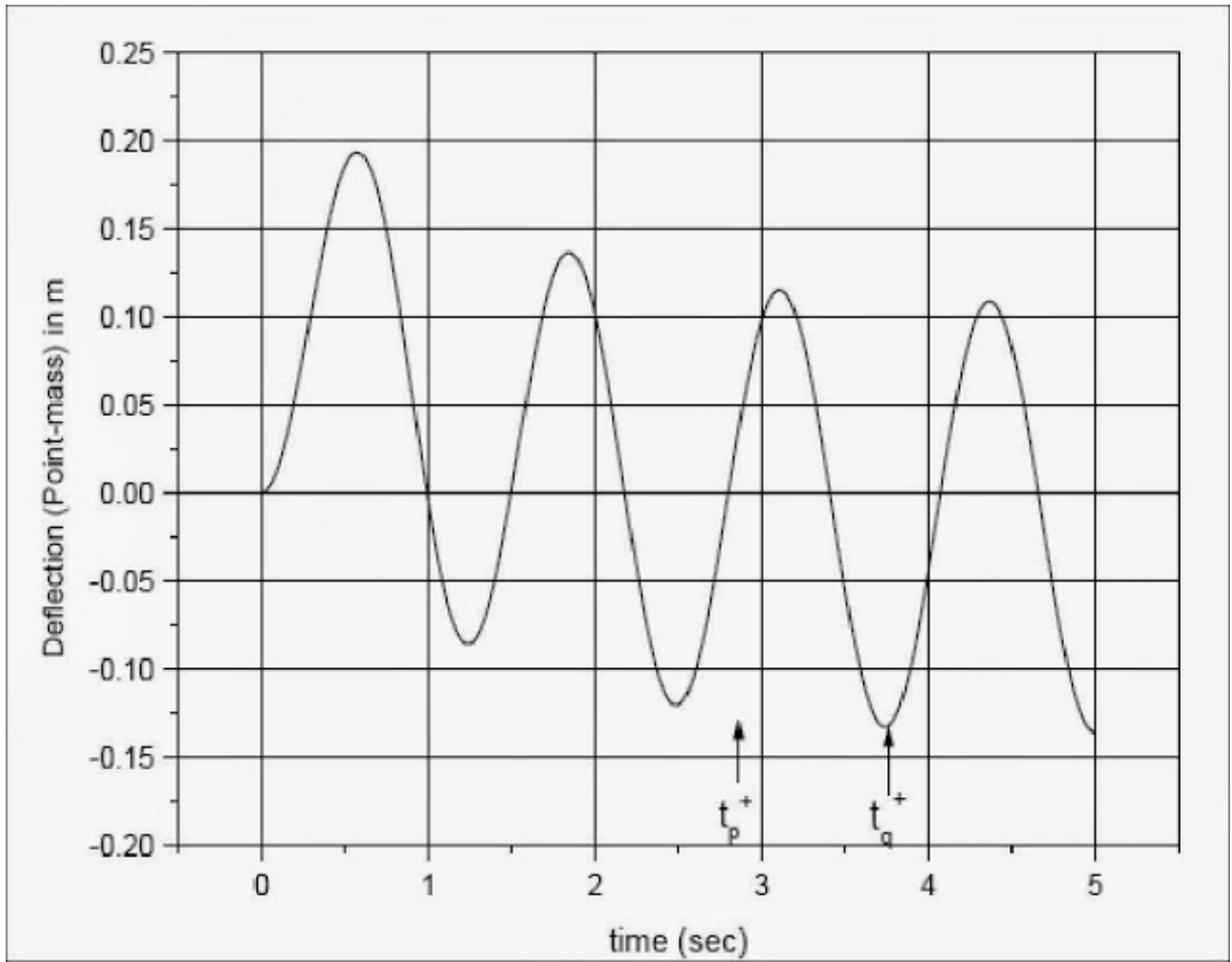
Energy is removed from the blast wave by the following processes when the blast damages a building:

1. SEISMIC WAVES WITHIN THE BUILDING MATERIAL. Some of the blast energy is transformed into a seismic wave in the concrete or steel of the building material, similar to a ground shock wave. This is however only a relatively small use of blast energy (for the reasons that the article above points out).

2. DAMAGE TO BUILDING. Breaking the thick large glass windows and wall panels of modern city buildings absorbs some blast wave energy (quite apart from the seismic coupling mentioned above). This energy is used in breaking the chemical bonds in the materials, like the crystalline lattice of the glass. This energy ends up as a small rise in temperature of the debris.

3. KINETIC ENERGY OF DEBRIS ACCELERATED BY THE BLAST WINDS. Once windows are broken, the winds behind the blast front accelerate the fragments to some extent. The peak wind velocity behind a 1 psi peak overpressure blast wave is 40 miles per hour, but the blast wave has passed at supersonic velocity before the debris has been accelerated to 40 mph. Nevertheless, this can be very important in absorbing the energy of the drag or dynamic pressure of the blast wave. (Blast walls, for instance, work by deflecting and stopping the blast winds. If a building wall survives the blast wave, it does the same job of stopping the blast winds/dynamic pressure and has a shielding effect.).

3. ENERGY OF OSCILLATION OF BUILDING AS A WHOLE. (See graph below from Professor Bridgman's 2001 unfortunately limited distribution book on the physics of nuclear weapons effects [<http://www.afit.edu/directory/faclook.cfm?id=30>] .) Apart from the energy used in sending a seismic wave through the building, and apart from the energy used in breaking doors and windows or panels and apart from the energy used in accelerating the resulting debris fragments, there is another use of energy that absorbs energy from the blast wave: this is the oscillation of the building as a whole. The whole building oscillates like a massive tuning fork, at its resonate frequency, after being hit by the blast loading. The amplitude of the blast wave determines the amplitude of the oscillation of the centre of mass of the building. (If the oscillations lead to forces beyond the strength of the building, as at extremely high peak overpressures, some of the upper floors could be broken off, as occurred during some very powerful nuclear weapon tests on multistory concrete buildings which had been located near ground zero in several multimegaton bursts at Bikini Atoll, Operation Hardtack in 1958 [<http://glasstone.blogspot.co.uk/2011/05/declassified-data-on-structures-exposed.html>] .)



[[http://3.bp.blogspot.com/-](http://3.bp.blogspot.com/-Pvth6KZnv9g/UnayhxkeSBI/AAAAAAAAAD6g/6_deu6RhZnE/s1600/Bridgman+2001+Physics+of+Nuclear+Weapons+Effects.JPG)

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Bridgeman (*Introduction to the Physics of Nuclear Weapons Effects*, 2001) considers a building with an exposed area of 163 square metres, a mass of 455 tons and natural frequency of 5 oscillations per second, and finds that a peak overpressure of 10 psi (69 kPa) and peak dynamic pressure of 2.2 psi (15 kPa) at 4.36 km ground range from a 1 Mt air burst detonated at 2.29 km altitude, with overpressure and dynamic pressure positive durations of 2.6 and 3.6 seconds, respectively, produces a peak deflection of 19 cm in the building about 0.6 second after shock arrival. The peak deflection is computed from Bridgman's formula on p. 304: deflection at time t ,

$$x_t = [A/(fM)] \left\{ \text{integration symbol} \right\} [\sin(ft)] (P_t + C_D q_t) dt \text{ metres,}$$

where A is the cross-sectional face-on area of the building facing to the blast (e.g., 163 square metres), f is the natural frequency of oscillation of the building (e.g., 5 Hz), M is the mass of the building, P_t is the overpressure at time t , C_D is the drag coefficient of the building to wind pressure ($C_D = 1.2$ for a rectangular building), and q_t is the dynamic pressure at time t .

This 19 cm computed maximum deflection allows us to estimate how much energy is permanently and irreversibly absorbed from the blast wave by a building and transformed into slow-moving (relative to the shock front) debris which falls to the ground and is quickly stopped after the blast has passed it by: $E = Fx$, where F is force (i.e., product of total pressure and area) and x is distance moved in direction of force due to the applied force from the blast wave. If the effective *loading* pressure (overpressure and dynamic pressure combined) on the building for the first 0.5 second is equal to 12 psi (83 kPa) then the mean force on the building during this time is 13 million Newtons, and the energy absorbed by the building from the blast wave (reducing the potential of the blast to cause further destruction at greater radial distances) is simply:

$$E = Fx = 13,000,000 \times 0.19 = 2.6 \text{ MJ.}$$

This is interesting because we have already discussed earlier the problem that Penney found a large attenuation in peak overpressures due to the irreversible energy loss via damage done at Hiroshima and Nagasaki [<http://glasstone.blogspot.com/2006/03/samuel-glasstone-and-philip-j-dolan.html>] . Although you might expect some overpressure to diffract downwards as the energy is depleted near ground level, the effect of the fall in air density with increasing altitude will tend to prevent this. In any case, only blast overpressure diffracts. Dynamic pressure is a directional (radial) wind effect which does not diffract downwards. Hence, blast energy loss from the wind (dynamic) pressure cannot be compensated for by downward diffraction. This is why shallow open trenches provided perfect protection against wind drag forces at nuclear tests in the 1950s [<http://glasstone.blogspot.com/2006/03/samuel-glasstone-and-philip-j-dolan.html>] , although the overpressure component of the blast did diffract into them: the wind just blows over the top of the trench without blowing down into it!

Above: Bridgman's 2001 book *The Physics of Nuclear Weapons Effects* calculated the time-dependent oscillation of the centre of mass of a typical city building, finding oscillations *much* larger for the moderate damage region (say 10 psi peak overpressure from a 1 megaton surface burst) than the paltry 1 cm quoted wrongly in the paper above (buildings actually move 1 cm from natural earth tremors and normal wind, without damage). In Bridgman's example above, which ignores damping of the oscillations (damping is not significant for the first full oscillation), the initial displacement is nearly 20 cm, not merely 1 cm. If a force (i.e. net loading pressure times area), F moves the centre of mass of a building distance x , the energy absorbed by the building is simply $E = Fx$. There is nothing complex here. You don't need to obfuscate the physics by comparing the density of a building to the density of the air. This kind of silly density comparison is first made by Dr Harold Brode in his 1968 paper "Review of Nuclear Weapons Effects" in *Annual Review of Nuclear Science* v18, pp153-202, in order to try to justify why about 15% of the energy of a megaton surface burst was coupled into the ground (rather than the air), by pointing out that air is about a thousand times less dense than soil.

The acoustic impedance of air compared to soil is pretty irrelevant because the 15% figure is - as Brode explains later in his paper - nothing to do with air blast but actually due to the half of the dense metal case

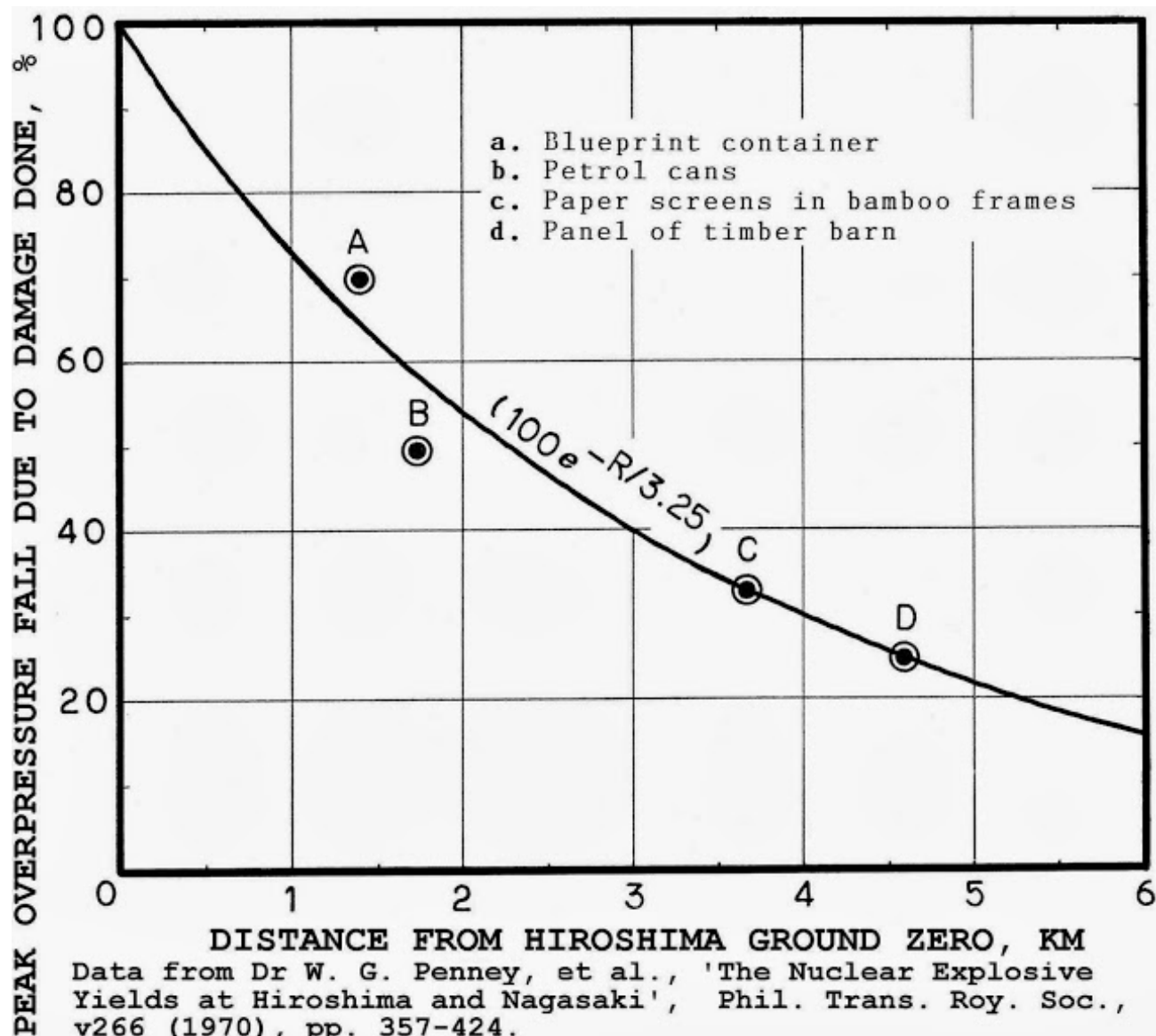
shock of the weapon (the half moving downward) burying itself in the ground and causing the cratering effects and ground shock. The ratio of densities of air and building material is irrelevant to the energy coupled into the building. This ratio would only matter if you are calculating the reflection of a sound wave or weak blast wave from a large homogeneous, non-breaking mass of the material. I.e., it is useful for estimating the energy absorbed (transformed from sound waves into weak seismic waves) by a concrete ground surface when a sound wave hits the ground. This is not the only use of energy anyway, because as we have explained, the seismic wave coupled into a building from a blast wave reflection is only one mechanism by which the building absorbs blast wave energy. Apart from a seismic wave being sent through the building, blast energy is also absorbed through the building suffering cracks to glass and panels, the blast wind energy used to accelerate fragments of the resulting debris, and the overall vibration of the whole building which can absorb lots of blast energy!

Glasstone's nuclear effects handbook, *The Effects of Atomic Weapons*, 1950, on page 57 has a section written by John von Neumann and Fredrick Reines of Los Alamos (it is attributed to them in a footnote) stating factually:

"... the structures ... have the additional complicating property of not being rigid. This means that they do not merely deflect the shock wave, but they also absorb energy from it at each reflection.

"The removal of energy from the blast in this manner decreases the shock pressure at any given distance from the point of detonation to a value somewhat below that which it would have been in the absence of dissipative objects, such as buildings."

This was removed from future editions. This isn't speculative guesswork: it's down to the conservation of energy. Penney published the experimental proof from Hiroshima and Nagasaki in 1970, after being made a Lord and FRS [<http://rsta.royalsocietypublishing.org/content/266/1177/357.abstract>] :



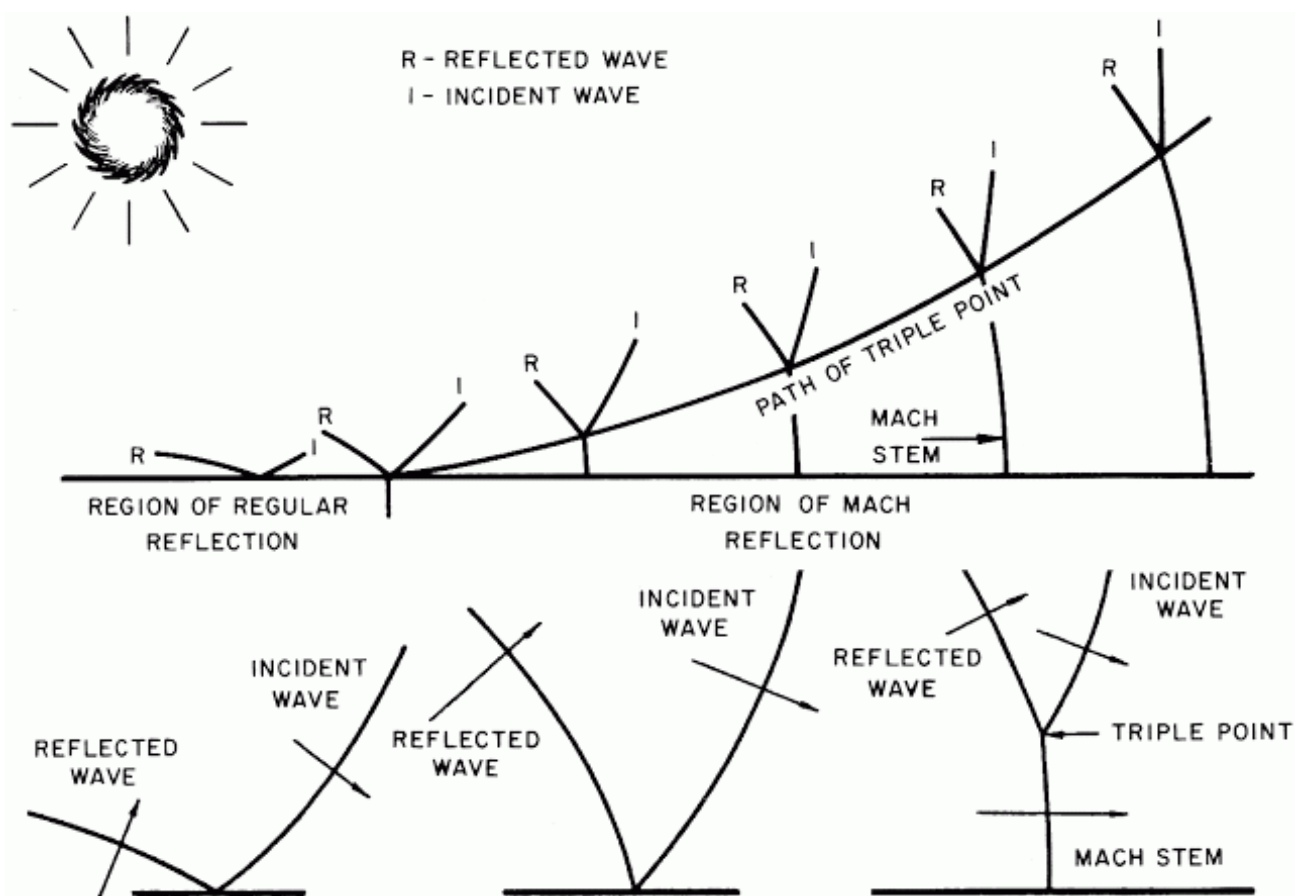
[http://1.bp.blogspot.com/-tAWUDEjb_lg/UmrJiMFg-4I/AAAAAAAAADz8/Qx_I_b9kJRI/s1600/Penney1.JPG]

Cumulative irreversible peak overpressure reduction in the Hiroshima shock front as it propagated and diverged, due to energy used in damaging wooden buildings, calculated from accurate natural blast gauges*		
Gauge used to determine peak overpressure	Ground range	Reduction
Bent lightning conductor	940 m	7 %
Overturned memorial stones	1,310 m	14 %
Partially collapsed blue-print container	1,400 m	30 %
Partially collapsed petrol cans	1,740 m	50 %
Broken paper screens and bamboo frames	3,660 m	66 %
Broken panel of timber barn	4,570 m	75 %

[<http://4.bp.blogspot.com/-iuOiorfAxKw/UmrJn2lkrRI/AAAAAAAAAD0E/hAz1T40oEI8/s1600/Penney2.JPG>]

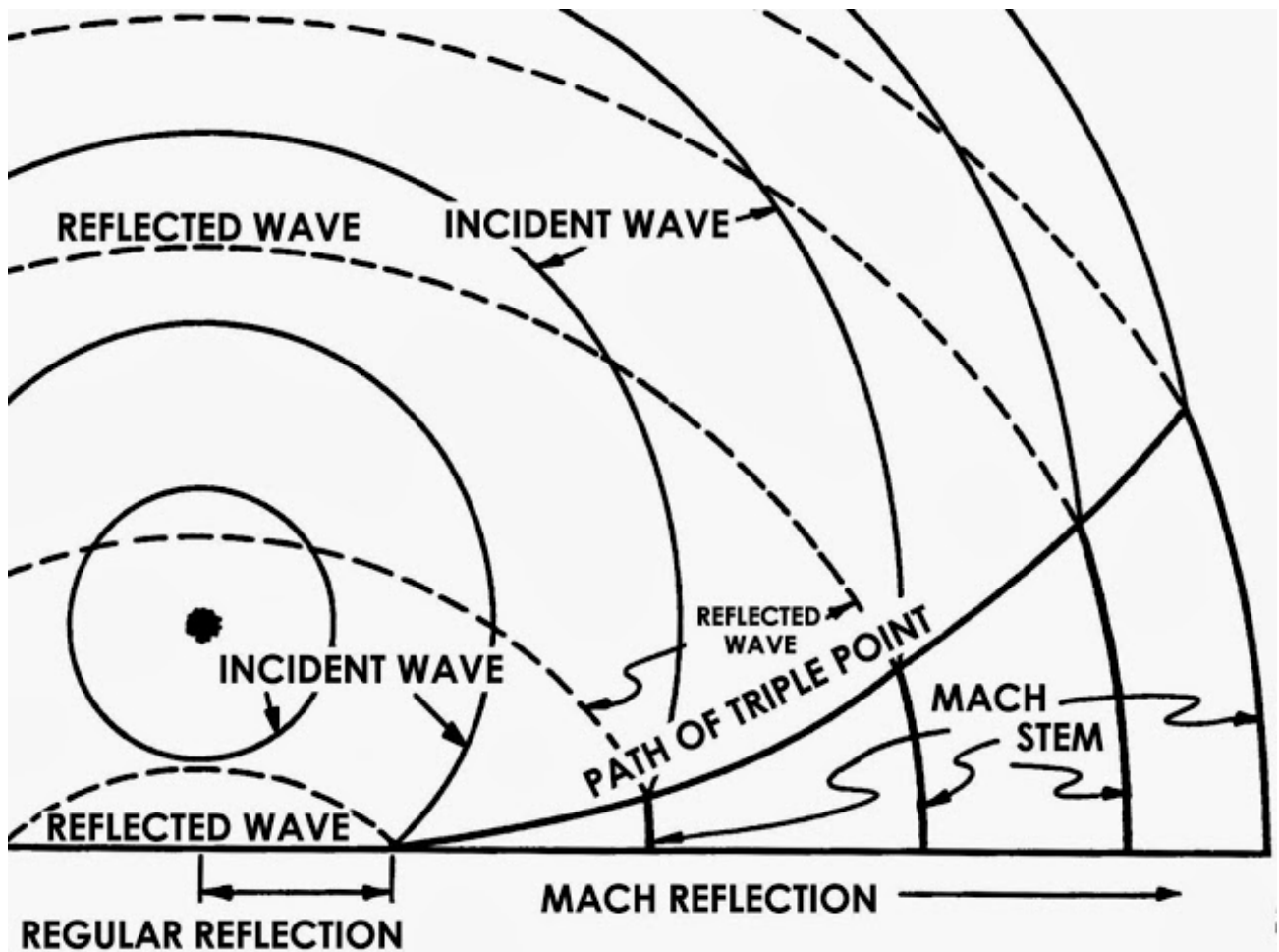
* Hiroshima was an air burst not a surface burst. Therefore, "regular" blast reflection (incident blast coming downwards on a slant path from the burst point, with little shielding, apart from the effects of tall buildings near

ground zero, followed by a separate ground-reflected upward slanted blast wave) predominated for near ground zero, and "Mach reflection" (merged incident and ground-reflected blast, in a single horizontally-travelling vertical shock front) predominated at larger distances (overpressures below about 16 psi). Hence, in the graph plotted above we excluded Penney's two data points closest to ground zero, where regular reflection prevented the exponential attenuation from blast shielding effects from being cleanly observed. *In a ground surface burst in a city, Mach wave reflection occurs at all ranges, so the exponential attenuation law will be valid, and faster blast attenuation will occur for tall modern city concrete buildings than was observed in the predominantly low (1- and 2-story) wood-frame dwellings than covered most of Hiroshima.* The exact range to which "Mach reflection" occurs is dependent on the height of the target above ground zero, because the Mach front (merged incident and reflected blast waves) grows higher with increasing distance from ground zero. For an air burst, in tall buildings, regular reflection blast (separate incident and reflected blast waves) will hit the upper floors if they are above the height of the Mach stem, while the lower floors in the same building (within the Mach stem height) will only be subjected to a single Mach wave:



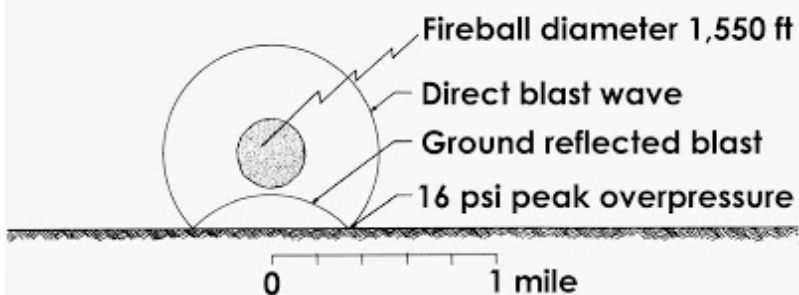
[<http://4.bp.blogspot.com/-LFj544wqUTs/UmzAYjYrjnI/AAAAAAAAAD00/DT-9uXfe5W4/s1600/regular+reflection+and+the+Mach+stem.GIF>]

Above: for a 1 kt air burst at height H feet, the Mach stem height at ground distance R feet is given by approximately $(R - H)^2 / (R + 7.4 \times 10^{-5} H^3)$ feet $\pm 20\%$, for distances $R > H$. (Our equation is based on the Mach stem height graphs given in TM 23-200 and DNA-EM-1. This is Nevada desert data for unobstructed terrain. This equation thus ignores terrain and building effects on the development of the Mach stem.)

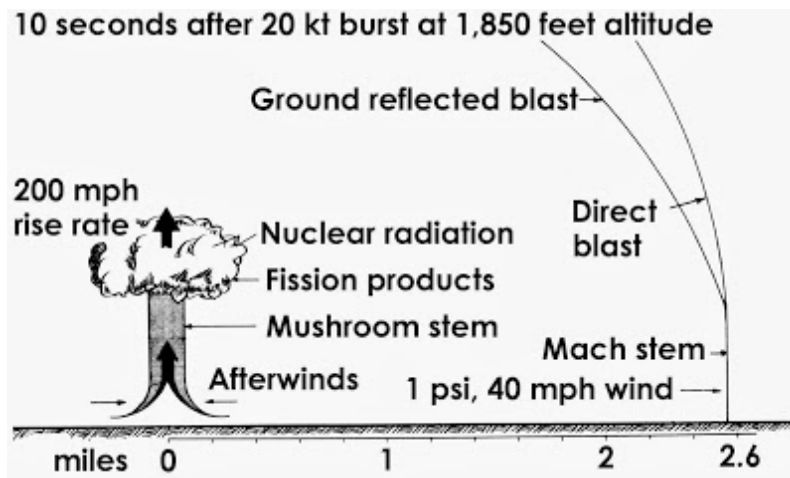


[<http://4.bp.blogspot.com/-E6-TLYe2jG4/UmzG5XKF2NI/AAAAAAAAAD1E/jKrhz2RC3eE/s1600/Mach+effect+EM1.JPG>]

1.25 seconds after 20 kt burst at 1,850 feet altitude:
 direct and ground reflected blast waves begin to
 fuse into a Mach stem, 0.35 mile from ground zero



[<http://1.bp.blogspot.com/-bpeemosJOF4/UmzHAqHhiqI/AAAAAAAAAD1M/pyTKS6sgzng/s1600/Hiroshima+1.JPG>]



[http://4.bp.blogspot.com/-hlgZPNAf_NY/UmzHfSiNMI/AAAAAAAAAD1U/8D_EmF_QH2w/s1600/Hiroshima+2.JPG]

Penney had earlier supported some experiments at the Atomic Weapons Research Establishment by W. Worsfold, published in the 1957 secret report *The Effects of Shielding a Building from Atomic Blast by Another of the Same Size and Shape*, AWRE-E4/57 (declassified only in May 1985) and further experiments in the report AWRE-E8/57. Each individual building causes only a trivial net reduction in the peak overpressure (1-5 %), but after some tens or hundreds of houses in any radial line from ground zero have been totalled, the blast wave is seriously depleted in energy. Hence, predictions of blast damage using desert nuclear test data with the cube-root scaling law are massive exaggerations.

Defense Threat Reduction Information Analysis Center

Modeling Nuclear Blast in Urban Terrain with NucFast (continued)

To describe the blast parameters from multiple shock waves, nonlinear summation rules (called the LAMB Addition Rules) are applied using the following conservation equations of mass, momentum and energy.

Conservation of Mass

$$\rho = \rho_0 + \sum_{i=1}^n \Delta\rho_i$$

Conservation of Momentum

$$\rho\vec{u} = \sum_{i=1}^n (\rho_0 + \Delta\rho_i)\vec{u}_i$$

Conservation of Energy

$$P = P_0 + \sum_{i=1}^n [\Delta P_i + 0.5(\rho_0 + \Delta\rho_i)|\vec{u}_i|^2] - 0.5 \frac{|\rho\vec{u}|^2}{\rho}$$

In these equations, ρ_0 is the ambient density at the point of interest, P_0 is the ambient pressure at the point of interest, $\Delta\rho_i$ is scaled shock overdensity of the i_{th} burst, ΔP_i is the scaled shock side-on overpressure of the i_{th} burst, \vec{u}_i is the scaled shock velocity of the i_{th} burst, ρ is the combined shock density, P is the combined shock pressure, and $\rho\vec{u}_i$ is the combined shock momentum.

[<http://2.bp.blogspot.com/-GX2qUa4W1ww/UmrLaldrWAI/AAAAAAAAAD0c/2JNAvOgZDJY/s1600/DTRIAC+Dispatch+2013+v3+issue+2+d.JPG>]

GX2qUa4W1ww/UmrLaldrWAI/AAAAAAAAAD0c/2JNAvOgZDJY/s1600/DTRIAC+Dispatch+2013+v3+issue+2+d.JPG]

ABOVE: Modeling Nuclear Blast in Urban Terrain with NucFast, an article by Charles Needham and Joseph

Madrigal, Applied Research Associates, Inc., in the latest DTRIAC Dispatch issue, gives the blast wave conservation laws [http://cms.dtra.mil/docs/dtriac/dispatch_v3_i2_web.pdf?sfvrsn=0] . It is totally uncontroversial that blast waves do use up energy when causing damage, and this reduces the pressure in the blast wave to values below the data measured over unobstructed surfaces in desert and ocean nuclear tests.

26 October 2013 update: the "Rankine-Hugoniot ideal condition" equations [http://en.wikipedia.org/wiki/Rankine%E2%80%93Hugoniot_conditions] relating wind speed, dynamic pressure and reflected peak pressure are totally misleading

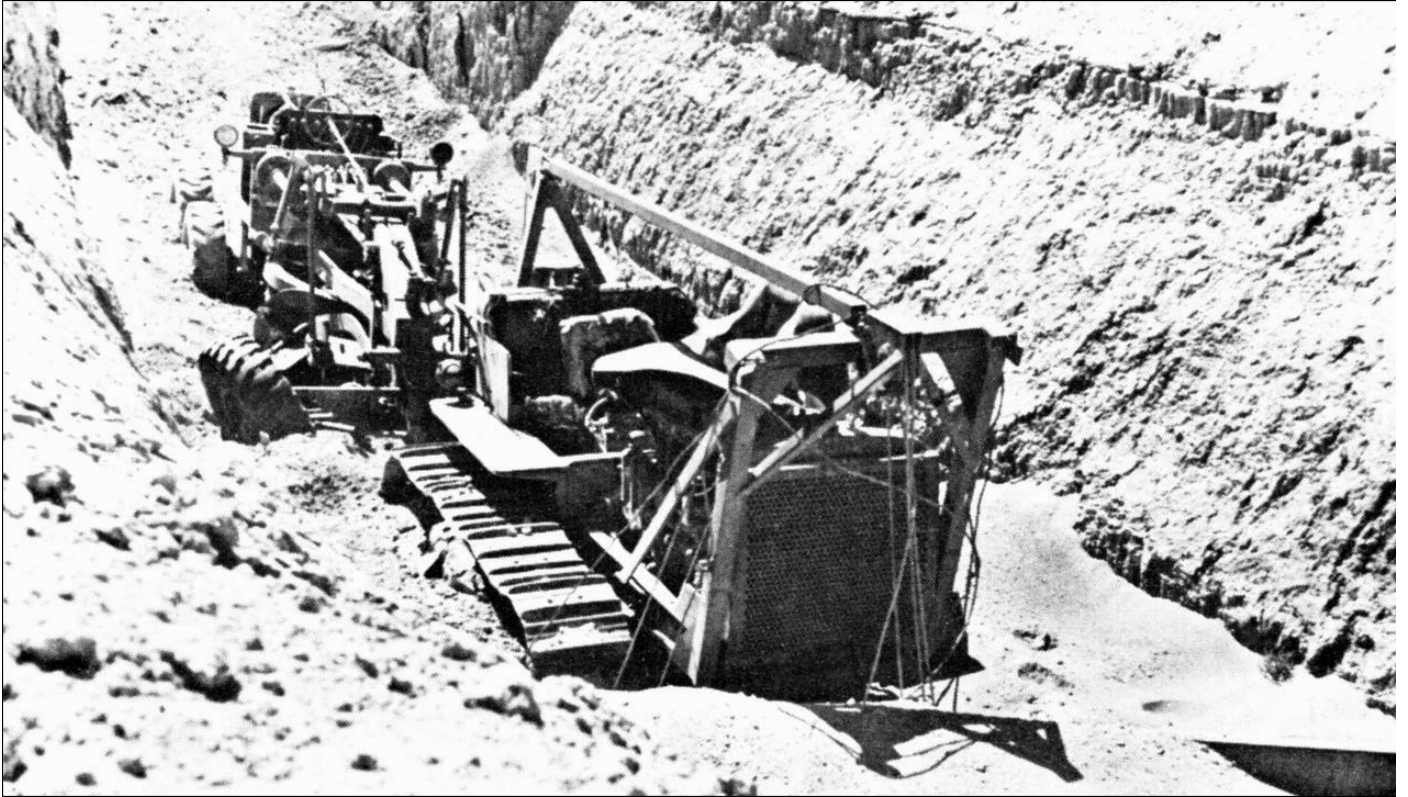
As for the precursor region, or for dynamic pressure in foxholes or behind obstacles shielded from the radial blast winds and dynamic pressure, there are no reliable "Rankine-Hugoniot" equations [http://en.wikipedia.org/wiki/Rankine%E2%80%93Hugoniot_conditions] for urban conditions, and it is vital to realize that whenever a building reflects a blast wave, the increase in the pressure on the building is not due to magical non-conservation of energy, but is simply a physical result of *stopping the blast winds and reversing the direction of the blast wave (so that the front of the wave collides with the rest of the wave as it begins to reverse direction, allowing the pressure to add)*.

The increase of the free-field overpressure when the blast wave reflects from the front face of a building at normal incidence (head on to the blast) is only possible if the blast *is reflected ideally*. If the blast *is reflected ideally*, the building is totally undamaged! You can't have your cake and eat it! If you want to model ideal reflections, there is no damage done by the blast. If there is damage done, there are no ideal reflections.

If windows cover most of the surface area of the building and they shatter, there is no ideal reflection, energy is absorbed in shattering the window, and the blast winds or dynamic pressure are also depleted in energy by the amount of kinetic energy which the glass fragments pick up from the blast wind pressure subsequent to the shattering.

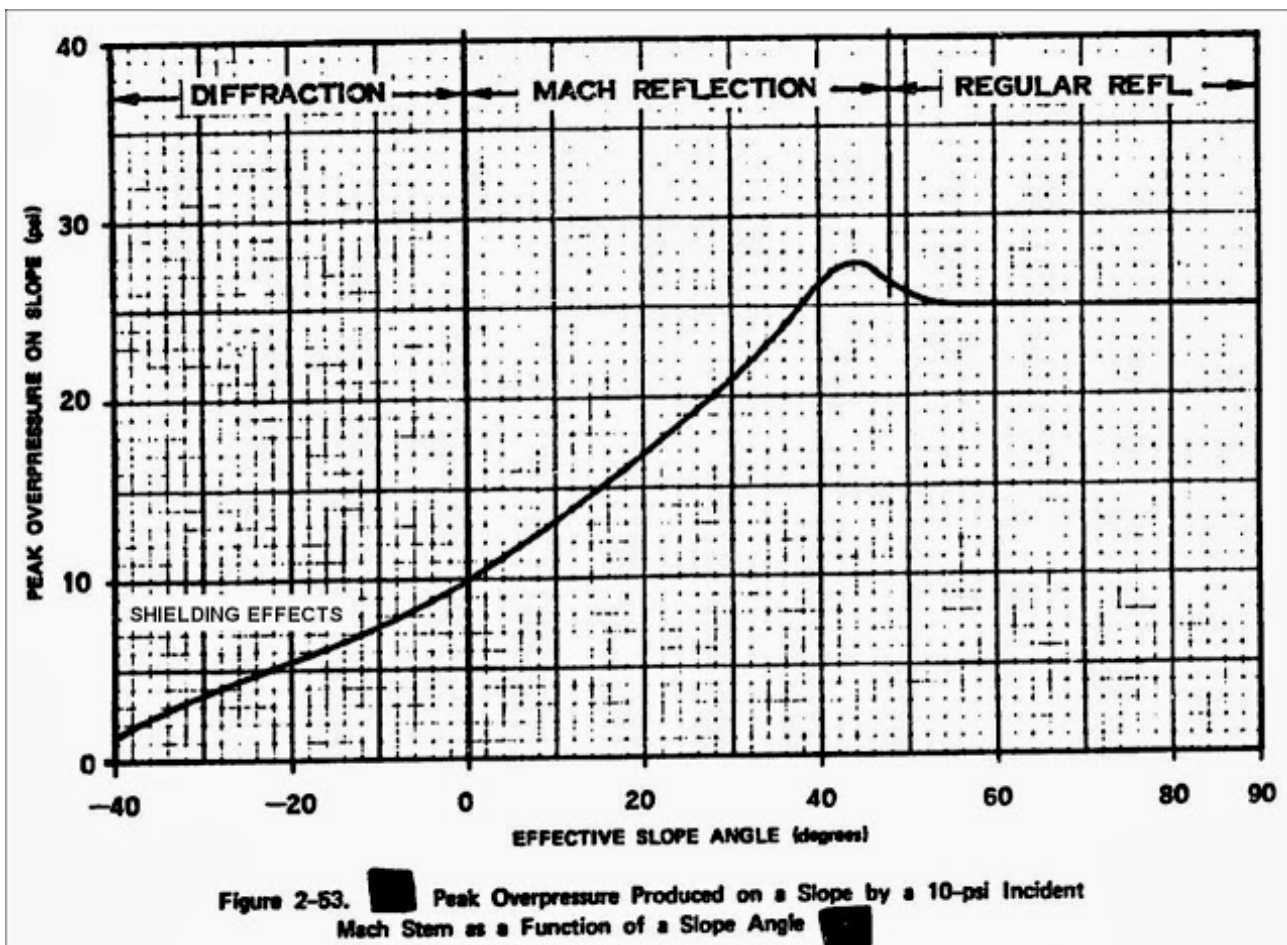
The acoustic analogy in a city compared to a desert is useful to understanding what happens in the low pressure region where dynamic (wind) pressure is insignificant. Sound and wind are both attenuated more in a built up modern city than they are over open desert-type (nuclear test) terrain. Sure, sound waves diffract around buildings, just as they diffract into open foxholes or around blast walls. But the whole point is quantitative. The overpressure in the diffracted sound or blast is reduced by obstacles, since they absorb energy, and don't diffract energy ideally or completely. (This is analogous to scattered radiation: sure, some radiation is scattered in all directions, but its intensity is lower than the unscattered radiation because some previously downward-travelling direct radiation gets scattered upwards and is thus lost in the scattering process.)

If you stand in a foxhole, behind a blast wall or a strong building which survives the blast, you are sheltered from the blast winds and drag effect or dynamic pressure of the blast wave, although some (reduced) overpressure will diffract in to you. This is not generally understood, and although Dolan's secret EM-1 contains a useful explanation on blast shielding, Glasstone and Dolan's unclassified *Effects of Nuclear Weapons* not only omits this blast shielding fact, but also misleadingly conflates ideal condition equations with city conditions, on the absurd basis that a precursor does not form over concrete. [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>]



[<http://2.bp.blogspot.com/-gXU0zrjJp5c/UpfUgDZEyCI/AAAAAAAAEDU/TAVgmTsFD2s/s1600/Met+1955+30+psi+peak+overpressure+blast+wind+shielding+by+trench+ENW57.JPG>]

Above: the Teapot-Met Nevada nuclear test in 1955 subjected bulldozers and road graders to 30 psi peak overpressure (photo was taken AFTER the blast!), proving blast wind shielding by a shallow-open trench. Similar equipment on open desert without protection was blown along and wrecked. (S. Glasstone, *Effects of Nuclear Weapons*, 1957.)



[[http://3.bp.blogspot.com/-](http://3.bp.blogspot.com/-ywTd4AC7EE/UmzHds9mnEI/AAAAAAAAAD1c/Uf_JEJS6kOg/s1600/DNA+EM+1+terrain+effect+3.JPG)

[ywTd4AC7EE/UmzHds9mnEI/AAAAAAAAAD1c/Uf_JEJS6kOg/s1600/DNA+EM+1+terrain+effect+3.JPG](http://3.bp.blogspot.com/-ywTd4AC7EE/UmzHds9mnEI/AAAAAAAAAD1c/Uf_JEJS6kOg/s1600/DNA+EM+1+terrain+effect+3.JPG)]

Above: shielding of overpressure by blast diffraction, from Dolan's secret DNA-EM-1. If you are in a trench, foxhole, or behind a blast wall, the overpressure that diffracts in to you is reduced below the free-field value.

This vital civil defense blast shielding evidence is excluded or is obfuscated (made unclear) in Glasstone's unclassified book. Additionally, as DNA-EM-1 illustrates, the blast winds (dynamic pressure) which cause the greatest threat from being blown along and from debris impacts, are excluded by simply being in an open trench or foxhole. The wind just blows over the top, without entering. You don't need an air-tight blast door to reduce blast effects. Any baffle or "blast wall" will reduce both the overpressure and dynamic pressure (drag and debris/missiles) dangers. People need to know this for self-protection.

At the 1955 *Teapot-Met* nuclear weapon test in Nevada, road graders and bulldozers were exposed both outdoors and in shallow open trenches at a distance where the free-field peak overpressure was 30 psi. The results are published in photo form in the 1957 edition of *The Effects of Nuclear Weapons*. The bulldozers and road graders in shallow open trenches were essentially unharmed because the blast winds blew over the top without entering, but those in the open (in unobstructed desert, with no protection or shielding by city buildings) were rolled along and wrecked by the blast wind drag. The same 1957 edition of *The Effects of Nuclear Weapons* contains photos showing blast walls (simply walls that are prism shaped, wider at the base than at the top to reduce the risk of being shattered or overturned by blast, and the consequences if overturning occurs) that protected transformers at an electric substation 0.85 mile from ground zero in Nagasaki after the nuclear air burst there. [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>]

НЕЙТРОННОЕ ОРУЖИЕ И ОСОБЕННОСТИ ЗАЩИТЫ ОТ НЕГО

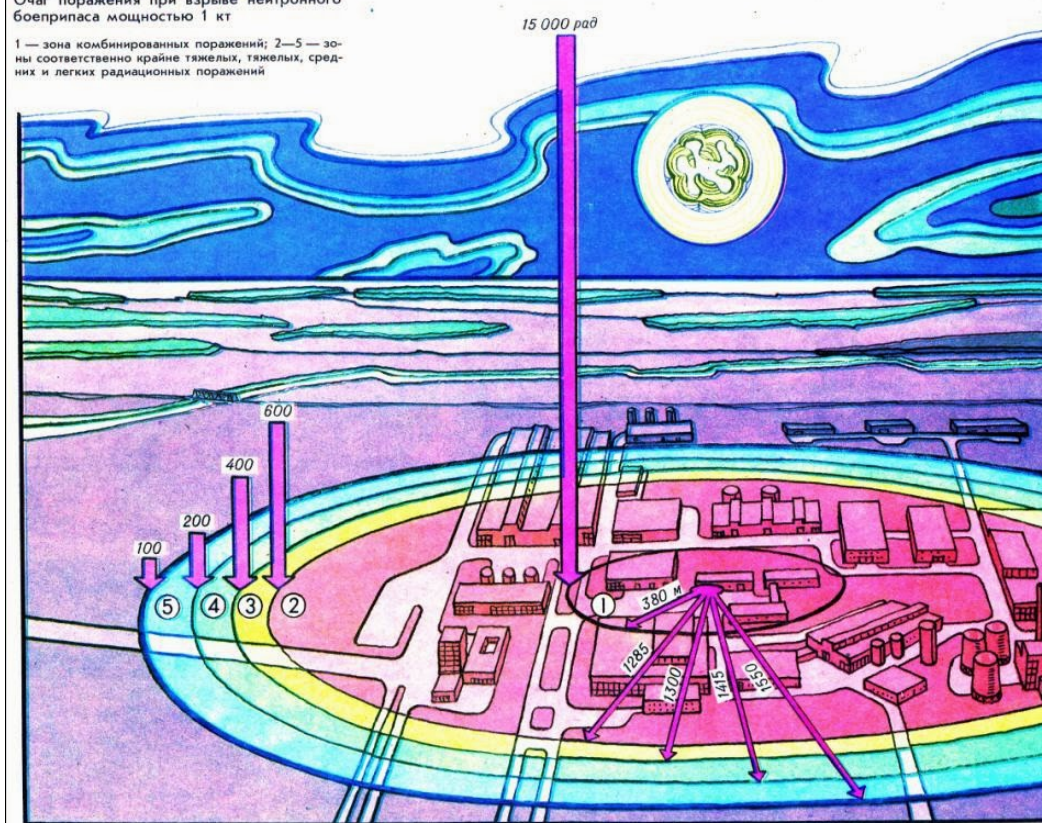
11

НЕЙТРОННОЕ ОРУЖИЕ — ЭТО НЕЙТРОННЫЕ БОЕПРИПАСЫ И СРЕДСТВА ДОСТАВКИ ИХ К ЦЕЛИ. НЕЙТРОННЫЙ БОЕПРИПАС — ТЕРМОЯДЕРНЫЙ ЗАРЯД С ВЕРХМАЛОЙ

МОЩНОСТИ (0,5—2,0 кт), ДЕЙСТВИЕ ЕГО ОСНОВАНО НА РЕАКЦИИ СИНТЕЗА ЯДЕР ВОДОРОДА — ДЕИТЕРИЯ И ТРИТИЯ

Очаг поражения при взрыве нейтронного боеприпаса мощностью 1 кт

1 — зона комбинированных поражений; 2—5 — зоны соответственно крайне тяжелых, тяжелых, средних и легких радиационных поражений

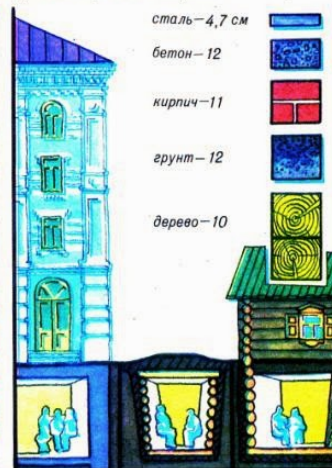


РАСПРЕДЕЛЕНИЕ ЭНЕРГИИ ВЗРЫВА НЕЙТРОННОГО И ЯДЕРНОГО БОЕПРИПАСА

Поражающий фактор	Энергия боеприпаса, %	
	нейтронного	ядерного
Ударная волна	40	50
Световое излучение	30	35
Проникающая радиация	25	5
Радиоактивное заражение	5	10

ЗАЩИТНЫЕ СВОЙСТВА МАТЕРИАЛОВ

Экспозиционную дозу радиации ослабляют вдвое материалы толщиной



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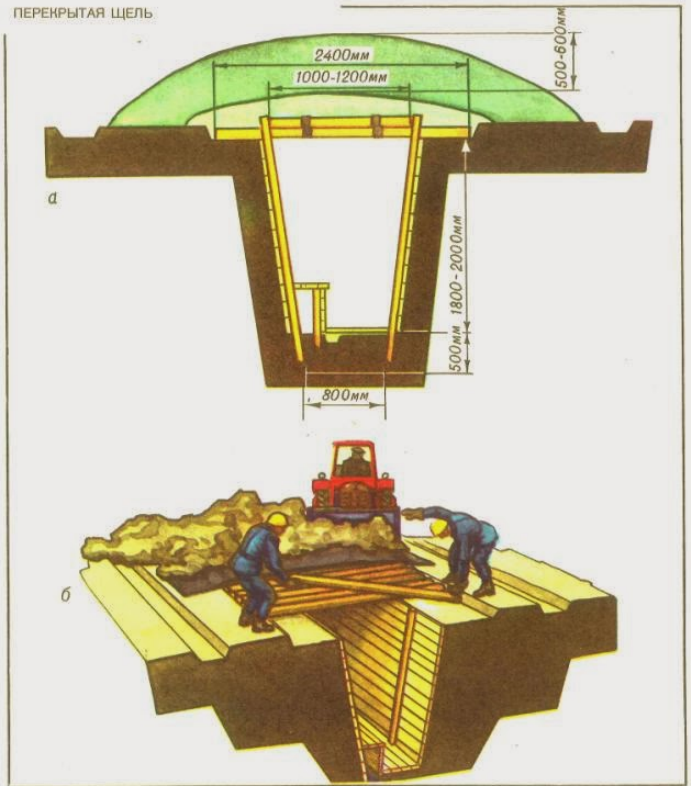
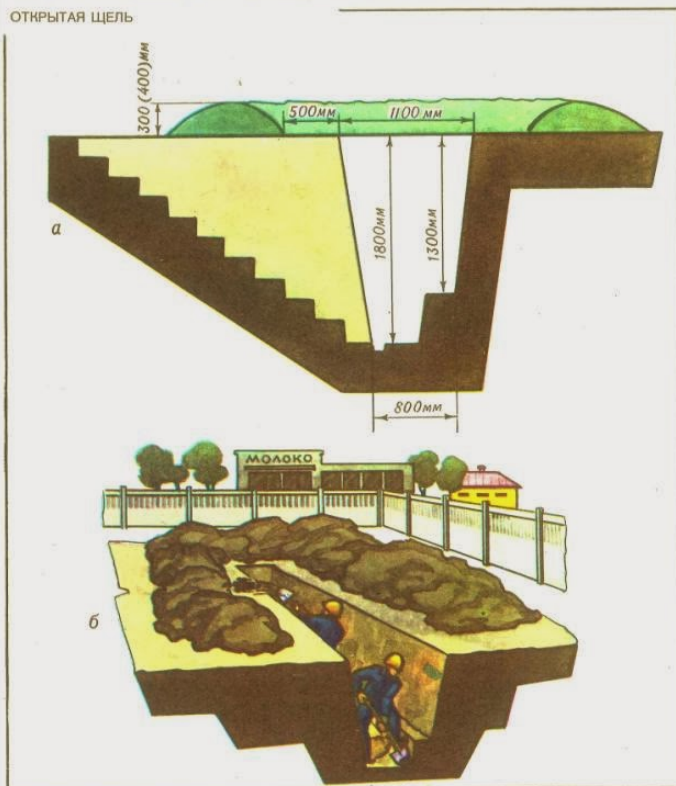
[tycfpa4F2U/UqN62nVjUCI/AAAAAAAAEHY/efVOPDI9WEw/s1600/1986+USSR+neutron+bomb+poster.JPG](http://4.bp.blogspot.com/-tycfpa4F2U/UqN62nVjUCI/AAAAAAAAEHY/efVOPDI9WEw/s1600/1986+USSR+neutron+bomb+poster.JPG)]

ПРОСТЕЙШИЕ УКРЫТИЯ ОСЛАБЛЯЮТ ВОЗДЕЙСТВИЕ УДАРНОЙ ВОЛНЫ И РАДИОАКТИВНОГО ИЗЛУЧЕНИЯ, ЗАЩИЩАЮТ ОТ СВЕТОВОГО ИЗЛУЧЕНИЯ И ОБЛОМКОВ РАЗРУШАЮЩИХСЯ ЗДАНИЙ, ПРЕДОХРАНЯЮТ ОТ ПО-

ПАДАНИЯ НА ОДЕЖДУ И КОЖУ РАДИОАКТИВНЫХ, ОТРАВЛЯЮЩИХ И ЗАЖИГАТЕЛЬНЫХ ВЕЩЕСТВ

ОТКРЫТАЯ ЩЕЛЬ

ПЕРЕКРЫТАЯ ЩЕЛЬ



а) схема щели; б) отрывка щели

а) схема щели; б) сооружение перекрытой щели с одеждой крутостей

ПРИ УГРОЗЕ НАПАДЕНИЯ ПРОТИВНИКА НАСЕЛЕНИЕ МОЖЕТ СВОИМИ СИЛАМИ СООРУЖАТЬ ИЗ ПОДРУЧНЫХ МАТЕРИАЛОВ ПРОСТЕЙШИЕ УКРЫТИЯ ТИПА ОТКРЫТЫХ, ПЕРЕКРЫТЫХ ЩЕЛЕЙ И ДР.

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Above: 1986 USSR civil defense posters showing how to protect against neutron bomb radiation and blast.

The USSR had the temerity to fund its Moscow "World Peace Council" propaganda front to persuade communists in CND like Phil Bolsover to write nonsense like the CND book *Civil defence - The cruellest confidence trick*, which was the 1980 version of notorious 1930s anti civil defence scare-mongering propaganda, which massively exaggerated the gas bomb effects to sneer at civil defense, in support of deluded political strategies which the public liked (in the hope of avoiding war) but which weren't realistic.

While doing this, the USSR was investing in realistic civil defense itself, which it had proof tested at its own nuclear weapons tests.

Car crashes due to bright flashes

Culbert B. Laney's article on page 2 of *Dispatch* [http://cms.dtra.mil/docs/dtriac/dispatch_v3_i2_web.pdf?sfvrsn=0]

very usefully points out that the well-filmed and documented 15 February 2013 meteor strike over Chelyabinsk in Russia was a 470 kt TNT equivalent air burst at 15 miles altitude, 30 times the yield of Hiroshima according to Dr Peter Brown's Meteor Physics Group at the University of Western Ontario, Canada.

It shattered over 100,000 square metres of glass in 3,000 buildings, cutting 1,500 people but killed nobody and apparently blinded nobody, despite facial injuries. The overpressures were so low that most of the glass injury was from falling glass fragments, not blast wind accelerated fragments. What is maybe more interesting however is the film from traffic cameras showing no panic of motorists on highways when the flash (visibly much brighter than the ambient sunlight) occurs: nobody panics and swerves, slams on breaks, or accelerates needlessly. People simply close their eyes for the couple of seconds of very bright, noiseless light. No car accidents occur, unlike the popular terror-spreading propaganda which claims without evidence that people

will panic in any soundless flash (ahead of the blast) and crash cars on highways (note that in a terrorist burst in a city, the shadowing effects of buildings and trees will prevent retinal burns to eyes, although the bright scattered light will still provide a useful duck and cover warning for those people near windows facing the burst who are at risk of glass fragments accelerated after the blast wave arrives subsequent to the noiseless flash):



[<http://2.bp.blogspot.com/-5a0xSHFqfCk/UoYFUTCJyW/AAAAAAAAAD-k/Q8syvKy60kl/s1600/Anderson+shelter+survival+in+Blitz+air+raid+1940+London.JPG>]

ABOVE: dirt cheap countermeasures worked against blast. Earth cover was blown off this Anderson shelter in London during the 1940 Blitz. This damage to the shelter absorbed blast energy, permitting survival inside, just as car bumpers and "crumple zones" absorb impact energy and thus afford protection. Tables indoors offered similar protection against house collapse and flying debris. [<http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n87/mode/2up>]



[[http://4.bp.blogspot.com/-](http://4.bp.blogspot.com/-yqKF3YDznQ4/UoeUdNYHBxI/AAAAAAAAAD_Y/Xm7awjxtio/s1600/20+July+1940+London+duck+and+cover+London+Board+of+Education+drill+for+air+raids.jpg)

[yqKF3YDznQ4/UoeUdNYHBxI/AAAAAAAAAD_Y/Xm7awjxtio/s1600/20+July+1940+London+duck+and+cover+London+Board+of+Education+drill+for+air+raids.jpg](http://4.bp.blogspot.com/-yqKF3YDznQ4/UoeUdNYHBxI/AAAAAAAAAD_Y/Xm7awjxtio/s1600/20+July+1940+London+duck+and+cover+London+Board+of+Education+drill+for+air+raids.jpg)]

Above: 20 July 1940 London Board of Education "duck and cover" school drill for air raids. The bigger the bomb, the bigger the average time between the light-velocity flash of the explosion and the arrival of the blast wave. It is a fact that 76.5% of kids ducking and covering in totally demolished houses survived in 2,340 V1 cruise missile attacks on London within 70 ft of the 1 ton TNT equivalent explosion (type A damage, complete collapse). This data, given in both the 1957 *Capabilities of Atomic Weapons* and the 1972 *Capabilities of Nuclear Weapons* [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] , is proved by Dr Derman Christopherson's Confidential report RC-450, *Structural Defence* [<http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C6357655>] . Bigger yield explosions increase the average arrival time of the blast within the flattened area (for any given pressure, the arrival time increases in proportion to the cube-root of the explosion energy yield, i.e. it takes 10 times longer for 1 psi to arrive in a 1 megaton bomb than in a 1 kiloton bomb), and the thermal and initial nuclear radiation (due to hydrodynamic enhancement of fission product gamma rays, a blast effect on the average air density between bomb and target) are both delivered more slowly as the yield is increased, giving people more time to avoid most of the potential exposure by taking cover. As the original Secret-classified American *Handbook on Capabilities of Atomic Weapons* (AD511880L) admitted on page 81: "The large number of casualties in Japan resulted for the most part from the lack of warning." [<http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n365/mode/2up>]

In addition, key V1 effects data from Christopherson's *Structural Defence 1945* (Ministry of Home Security research report RC-450) proved that over 75% of people survived house collapse, given quick "duck and cover" under tables in WWII, a fact that was included in Table 6.1 in Confidential American manual TM 23-200 *Capabilities of Atomic Weapons*, 1957, and Table 10-1 in Secret American manual DNA-EM-1 *Capabilities of Nuclear Weapons*, 1972. [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>]

CAPABILITIES OF NUCLEAR WEAPONS

1 JULY 1972

HEADQUARTERS
Defense Nuclear Agency
Washington, D.C. 20305

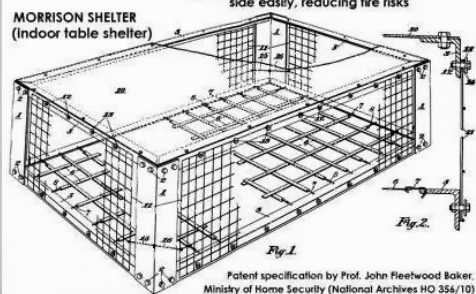
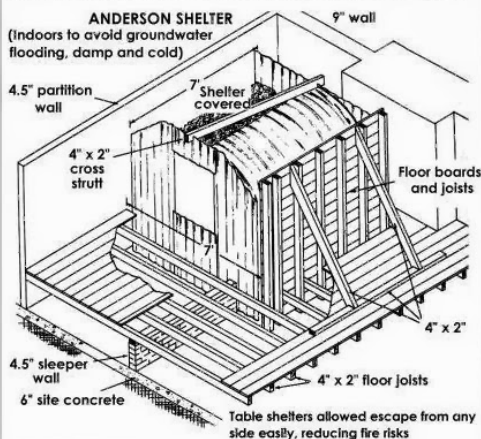


Table 10-1 Estimated Casualty Production in Buildings
for Three Degrees of Structural Damage

Structural Damage	Percent of Personnel*		
	Killed Outright	Serious Injury (hospitalization)	Light Injury (no hospitalization)
1 2 story brick homes (high-explosive data from England):			
Severe damage	25	20	10
Moderate damage	<5	10	5
Light damage	—	<5	<5
Reinforced-concrete buildings (nuclear data from Japan):			
Severe damage	100	—	—
Moderate damage	10	15	20
Light damage	<5	<5	15

*These percentages do not include the casualties that may result from fires, asphyxiation, and other causes from failure to extricate trapped personnel. The numbers represent the estimated percentages of casualties expected at the maximum range where a specified structural damage occurs. See Chapter 11 for the distances at which these degrees of damage occur for various yields.

November 1940 design by C. A. Joy, M. Inst. Me. & C. E.,
Bexley Borough Engineer (UK National Archives: HO 205/257)



BANK OF JAPAN BUILDING AFTER ATTACK ON HIROSHIMA



GEIBI BANK CO. BUILDING AFTER ATTACK ON HIROSHIMA

[[http://2.bp.blogspot.com/-](http://2.bp.blogspot.com/-iBMY3c0E9y4/UpXlr_txyBI/AAAAAAAAAEb0/2V4RGkc0Y2U/s1600/EM1+casualties+1972.JPG)

[iBMY3c0E9y4/UpXlr_txyBI/AAAAAAAAAEb0/2V4RGkc0Y2U/s1600/EM1+casualties+1972.JPG](http://2.bp.blogspot.com/-iBMY3c0E9y4/UpXlr_txyBI/AAAAAAAAAEb0/2V4RGkc0Y2U/s1600/EM1+casualties+1972.JPG)]



[<http://4.bp.blogspot.com/-45EvphBfyx8/UpXzBV2zpl/AAAAAAAAEB8/0fdBASWLanA/s1600/1939+Anderson+shelter+and+1941+Morrison+shelter.JPG>]

This blast effects data was however shamefully not used in the U.S. Office of Technology Assessment's 1979 report *The Effects of Nuclear War*, or any of CND's publications attacking civil defence. [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] We then gave the evidence that a bias is the cause. This was nothing new. Herman Kahn was vilified by James Newman's review of "On Thernuclear War" in the *Scientific American*, after debunking early fallout radiation "genetic mutation" fears as bunk compared to normal risks in peacetime (see quote from OTW below) and also debunking strontium-90 food contamination doomsday exaggerations. He was also vilified by a Kubrick film called *Dr Strangelove* which parodied Kahn's analysis of the rationale for a nuclear war.

As William A. McWhirter explained in his Herman Kahn article in the 6 December 1968 issue of *Life* magazine (below), Herman Kahn was *not trying to get a first strike or start a nuclear war*:

"The Left, Kahn argued, by insisting war was unthinkable and impossible, placed the U.S. in a position where it could be blackmailed by an enemy."

The Left, Kahn argued, by insisting war was unthinkable and impossible, placed the U.S. in a position where it could be blackmailed by an enemy. On the other hand, the Right, according to Kahn, by espousing a U.S. "nuclear umbrella" to cover the entire globe, not only risked wholesale destruction but engendered a good deal of fear and hatred from much of the world.

Consider, for example, how Herman Kahn became a national figure in Japan six years ago. "They took to me just like that," he says with a snap of his fingers, "because I told them what they wanted to hear. Which was that they would be the world's third-ranking industrial power by 1970."

How did Herman know that? He put a simple ruler on an economic growth chart and drew a line—straight up.

Exuberantly, Herman delights in the size and spaciousness of the Hudson Institute estate, which seems perfectly scaled for a 300-lb. global adviser.

by WILLIAM A. McWHIRTER
Vol. 65 No. 23 December 6 1968
Dr. Strangelove?

In 1940, as a freshman at U.S.C., Herman showed little of the weight but much of the same self-confidence he exhibits today. In class he either slept or read, then further annoyed his teachers by jumping up to answer a question and going back to his book or to sleep.

At the age of 9, Herman posed with his 12-year-old brother Irving in the Bronx. The years of growing up there and in California were unsettling. Herman's parents, who were Russian immigrants, drifted apart as the family veered shakily from modest wealth to welfare rolls and back again.

At this point in the lecture a lady in the audience got up and said in a very accusing voice, "I don't want to live in your world in which 1 per cent of the children are born defective." My answer was rather brutal, I fear. "It is not *my* world," I observed, and I then pointed out that if she did not want to live in a world in which 1 per cent of the children were born defective she had a real problem, since 4 per cent of the children are born defective *now*. This story illustrates that peace also has its tragedies, and that we tend in our day-to-day life to ignore the existence of this continuing risk. Unless their own family or close friends or relatives have been affected, most people just ignore these kinds of risks in the environment in which we live and raise families.

46

Herman Kahn, On Thernuclear War, 1960: 4% of kids are normally defective, and even a massive survivor dose of 250 R from a severe nuclear war would only cause an increase to 5%. In other words, war and peace differ by only a 1% difference.

[<http://3.bp.blogspot.com/->

uDRheTDongY/UppWACAB4W/AAAAAAAEeg/FOu53MkCkLY/s1600/Herman+Kahn+on+genetic+effects+of+nuclear+war.JPG]

U.S. Army strategic nuclear forces analyst Dr Michael F. Altfeld explained "Why MAD (Mutual Assured Destruction) was Insane" in his article of that title published in the U.S. Army Nuclear and Chemical Agency *NBC Report* (Spring/Summer 2006, pp. 56-61). [<https://archive.org/details/NBCReportSummer2006>] First, the John Foster Dulles "massive retaliation speech" of 12 January 1954 was, as Dulles later clarified in *Foreign Affairs*, only a policy of "massive retaliation" as the *most extreme possible option in a strategy of "selective retaliation"*. At that time the actual policy was geared towards tactical nuclear weapons of low yield (hence the Nevada "Desert Rock" tests). In 1962 the 0.02 kiloton Davy Crockett was test fired in Nevada shots Little Feller II and Little Feller I (Little Feller I was fired in front of Robert Kennedy). **The point of nuclear weapons stockpiles, after their strategic use against wooden Japanese cities in August 1945, was to save money by replacing the massive conventional armies which led to WWI and WWII, with relatively cheap and more highly deterring nuclear weapons.** American was able to demobilize (Russia did not) after WWII due to its possession of nuclear weapons. To make bombs *credible as a deterrent during the Cold War*, accurate delivery systems (computer guided cruise missiles, MIRV warheads, etc.) were developed to hit *military targets* with pin point accuracy, rather than civilian cities:

HEARING ON CIVIL PREPAREDNESS AND LIMITED NUCLEAR WAR

WEDNESDAY APRIL 28, 1976

U.S. SENATE AND
U.S. HOUSE OF REPRESENTATIVES,
JOINT COMMITTEE ON DEFENSE PRODUCTION,
Washington, D.C.

The committee met at 10:05 a.m. in room 5302, Dirksen Senate Office Building, Hon. William Proxmire, vice chairman of the subcommittee, presiding.

Present: Senators William Proxmire and John Sparkman.

Senator PROXMIRE. The committee will come to order.

Today's hearing inaugurates a review by the Joint Committee on our Nation's civil preparedness. It is the first such congressional review in over two decades.

By civil preparedness, we mean those mainly civilian measures by which we seek to protect the lives and property of our citizens.

This is the first function of any government. A government which cannot meet this fundamental test of defending its people and the national treasure is not likely to survive for very long.

In subsequent hearings, the committee will examine the adequacy of Federal, State, and local preparedness programs, including plans for fallout shelters, strategic evacuation, preparedness exercises and drills, civil defense stockpiles, and continuity of government. Likewise, the Joint Committee will inquire into the organization of the Government for preparedness. It will also review the Nation's industrial and economic preparedness in terms of the defense industrial base.

This is an especially timely undertaking. Over the past 2 years the United States has been moving from a declared nuclear policy of mutual assured destruction to one of flexible response, or limited nuclear war.

In the minds of some eminent strategists, this implies a lowering of the nuclear weapons threshold, a quickening of the trigger finger on the missile launch console, and an increased probability of uncontrolled nuclear conflict.

But to other equally qualified experts, this shift in strategic doctrine, this shift to larger numbers of more flexible, or more versatile and accurate weapons and control systems does not undermine deterrence of nuclear war; instead, it enhances deterrence.

Well, it can't be both ways and whenever you have such a complete divergence in expert opinion, it is time for a careful review of the facts.

These hearings are also timely in that there are increasing rumors of a civil defense gap, with the Soviet Union well in the lead.

In this year's annual report, Defense Secretary Rumsfeld stated that, and I quote:

An asymmetry has developed over the years that bears directly on our strategic relationship with the Soviets and on the credibility of our deterrent posture. For a number of years, the Soviets have devoted considerable resources to their civil defense effort which emphasizes the extensive evacuation of urban populations prior to the outbreak of hostilities, the construction of shelters in outlying areas, and compulsory training in civil defense for well over half the Soviet population. The importance the Soviets attach to this program at present is indicated not only by the resources they have been willing to incur in its support, but also by the appointment of a deputy minister of defense to head this effort.

Now, the term "asymmetry" used by the Secretary sounds to a non-expert like me like a four-bit word for "gap." We have heard a great deal over the years about gaps that never materialized or proved unimportant. Yet we have spent a lot of money to eliminate the non-existent or the insignificant. It is for this reason that the committee last week published the declassified text of the 1957 Gaither Report which invented the first missile gap.

3

STATEMENT OF HON. PAUL NITZE, FORMER SECRETARY OF THE NAVY, DEPUTY SECRETARY OF DEFENSE, AND MEMBER OF THE SALT DELEGATION

Mr. NITZE. Mr. Chairman, my interest in the questions which this committee is discussing began in 1944 when I was asked to be a director of the U.S. Strategic Bombing Survey. The required qualification of the directors was that they have no prior knowledge of military strategy or of air power, and could thus be presumed to be unbiased in appraising the effects of the immense U.S. strategic air effort in World War II. I spent the next 2 years in Europe and then in the Pacific in intensive work, in association with what I believe to have been the best talent available to this country, to try to understand something about both subjects. In the Pacific portion of the survey, as Vice Chairman, I was in effective command of the operation, including the detailed study of the effects of the weapons used at Hiroshima and Nagasaki.

Since that time much has changed. Weapons have increased in yield and missiles now have an intercontinental range. But these changes are hardly as revolutionary as the changes brought about by the role of effective air power in World War II and of the introduction of nuclear weapons in its closing phase. After all, the largest number of our nuclear reentry vehicles today are Poseidon warheads, each of which has an equivalent megatonnage less than twice that of the weapons used at Hiroshima and Nagasaki.

At Hiroshima and Nagasaki there was no air-raid warning and very few people availed themselves of the crude civil defense facilities which were available. Most of those that did, even at ground zero, in other words, directly under the explosion, which was at the optimum height of burst, survived. The trains were operating through Hiro-

[[http://2.bp.blogspot.com/-](http://2.bp.blogspot.com/-IAz46SPwJ5s/UpXtN4gtNW/AAAAAAAAECM/LXg1MBKPKHw/s1600/EM1+casualties+1972c.JPG)

[IAz46SPwJ5s/UpXtN4gtNW/AAAAAAAAECM/LXg1MBKPKHw/s1600/EM1+casualties+1972c.JPG](http://2.bp.blogspot.com/-IAz46SPwJ5s/UpXtN4gtNW/AAAAAAAAECM/LXg1MBKPKHw/s1600/EM1+casualties+1972c.JPG)]

Above: U.S. Congressional *Hearings on Civil Preparedness and Limited Nuclear War* from 1976: "Over the past two years, the United States has been moving from a declared nuclear policy of mutual assured destruction to one of flexible response, or limited nuclear war."

[<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n479/mode/2up>]

This is validated by declassified documents written by senior nuclear weaponeers [<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n453/mode/2up>].

That was at the deepest point of the arms race during the Cold War, when the USSR was both achieving

nuclear parity with the West at excruciating economic cost [https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n449/mode/2up] , and this led to civil defence in both the USA and UK (e.g. Cresson Kearny's 1979 official *Nuclear War Survival Skills*, based on proof-tested American versions of Russian civil defence shelters [https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n465/mode/2up] , <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA328301> [http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA328301] , and British civil defence, which included some of Kearny's designs but also incorporated improved versions of WWII shelters as proof tested during British nuclear tests [https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n223/mode/2up] ; these countermeasures were similar to army field defenses, so their nuclear test validation evidence remained a military secret).



There are currently over 100 U.S. Bases along with 7000 nuclear warheads sited in the United Kingdom, more than in any other country of similar size and population.
 The stockpile of nuclear weapons in this country has a combined explosive power equal to 200 million tons of TNT.
 It is estimated that 600 nuclear weapons would wipe out the 200 Soviet cities which house the majority of the population. In 1979, the U.S.A. had approximately 13,000 nuclear weapons.
 The British taxpayer has to pay an annual arms bill of £10,500 million, equivalent to £197 for every man, woman and child in the country.
 The world as a whole spends £600 million a day on weapons.

Moscow World Peace Council / CND propaganda from 1980 omits USSR arms!

[http://1.bp.blogspot.com/-OZlzxqr_eu4/Upuc4-ROBpl/AAAAAAAAEEw/FZceiDxQkc0/s1600/CND+1980+propaganda.jpg]

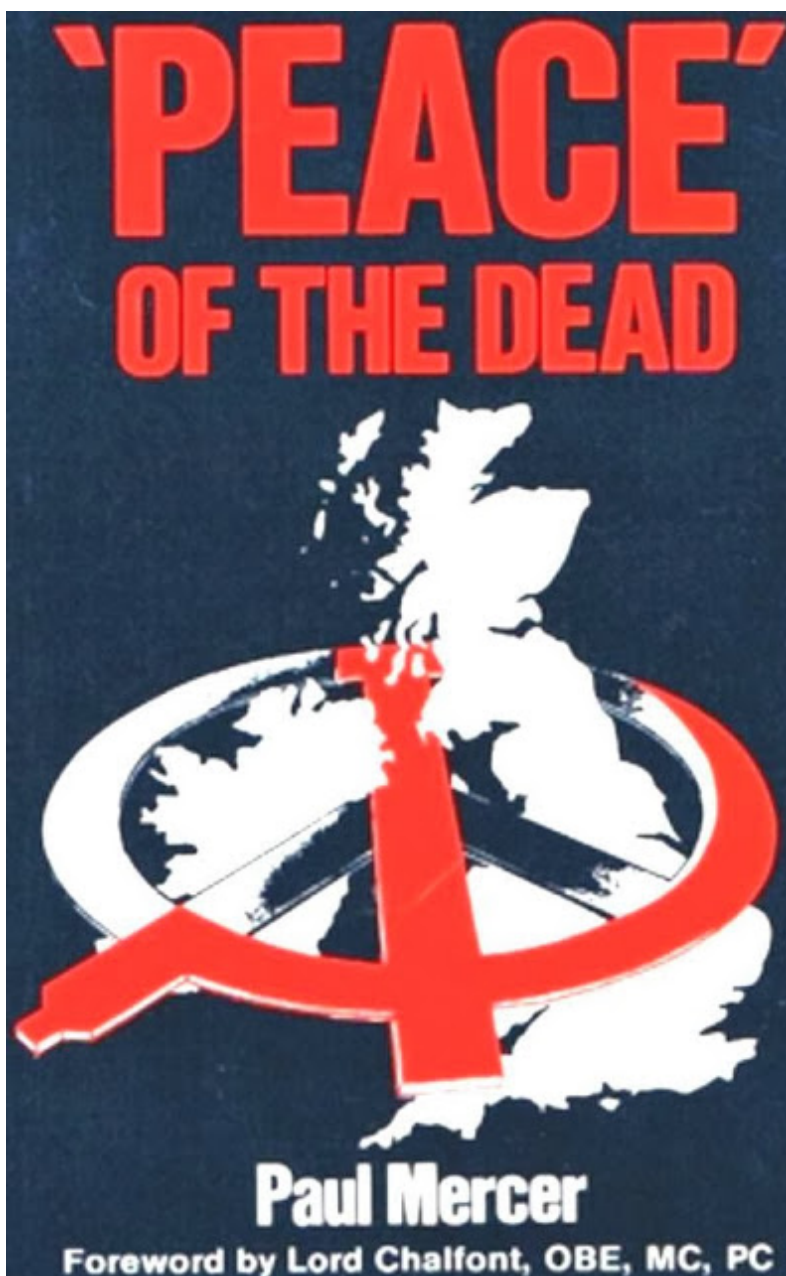
Above: CND/Moscow "World Peace Council" produced propaganda supporting the enemy, which first falsely correlated the energy release with the TNT equivalent, ignoring

(1) the cube-root distance scaling which means that blast casualty areas only scale as the two-thirds power of yield (i.e. the casualties per ton of TNT equivalent aren't proportional to total yield of an explosion, to the two thirds power of yield per unit yield, which using the law of indices results in the casualties per ton being proportional to $1 / [\text{cube root of yield}]$), and

(2) bigger yields which produce larger areas of destruction increase the mean time between the flash and the blast arrival over the serious blast area, allowing more time for duck and cover against blast wind displacement and flying debris. The "overkill" concept is also bogus for the strategic and tactical reasons linked here [https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n469/m

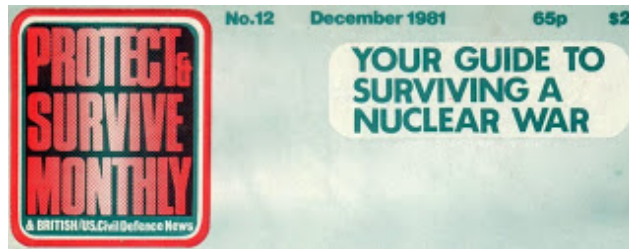
[ode/2up](#)] (there is no "theoretical limit" to how many people a single stick or stone could kill, so you could say that any rock could in theory kill everyone in the universe; the practical limitations are simply more obvious with a rock than a nuclear weapon due to widespread ignorance of the true limitations and physics of the latter).

The propaganda also ignored the [military threat from the USSR's massive arms spending](#) [<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n461/mode/2up>] , presenting the nuclear threat as being our own deterrent, not the enemy. (As if we are at risk of bombing our own country.) Paul Mercer worked for CND's head office as a "spy for peace" but after discovering - in CND's confidential files - the evidence that the leaders of CND were communists who were being aided by the USSR "Moscow World Peace Council" (a Kremlin KGB-front) - he exposed the shocking truth in his 1986 book *Peace of the Dead: The Truth Behind the Nuclear Disarmers* (which we reviewed [here](#)) [<http://glasstone.blogspot.co.uk/2006/03/samuel-glasstone-and-philip-j-dolan.html>] , with a foreword written by Lord Chalfont:



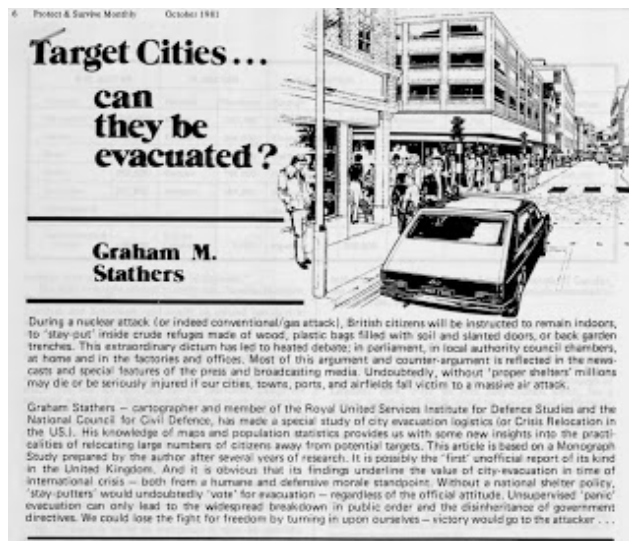
[<http://4.bp.blogspot.com/-5ca->

[POZ5VdE/UufVnlzM2I/AAAAAAAAEFM/abOzm1iohQU/s1600/Paul+Mercer+Peace+of+the+Dead+1986.JPG](http://4.bp.blogspot.com/-5ca-POZ5VdE/UufVnlzM2I/AAAAAAAAEFM/abOzm1iohQU/s1600/Paul+Mercer+Peace+of+the+Dead+1986.JPG)]



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[o4YIijHjOI/Upueqklk9SI/AAAAAAAAEFE/D8bQd-pNW10/s1600/Protect+and+Survive2.jpg](http://1.bp.blogspot.com/-o4YIijHjOI/Upueqklk9SI/AAAAAAAAEFE/D8bQd-pNW10/s1600/Protect+and+Survive2.jpg)]

Media enemy-supporting propaganda within democracies: simple lies win out over complex truths

"... fashionable trends of thought and ideas are carefully separated from those which are not fashionable ... what is not fashionable will hardly ever find its way into periodicals or books or be heard in colleges. Legally your researchers are free, but they are conditioned by the fashion of the day.

[<http://distributistreview.com/mag/wp-content/uploads/2010/07/Solzhenitsyn-Harvard-Address.pdf>] There is no open violence such as in the East; however, a selection dictated by fashion and the need to match mass standards frequently prevent independent-minded people from giving their contribution to public life. There is a dangerous tendency to form a herd, shutting off successful development. I have received letters in America from highly intelligent persons, maybe a teacher in a faraway small college who could do much for the renewal and salvation of his country, but his country cannot hear him because the media are not interested in him. This gives birth to strong mass prejudices, blindness, which is most dangerous in our dynamic era.

[<http://distributistreview.com/mag/wp-content/uploads/2010/07/Solzhenitsyn-Harvard-Address.pdf>]

[<http://distributistreview.com/mag/wp-content/uploads/2010/07/Solzhenitsyn-Harvard-Address.pdf>] - Aleksandr Solzhenitsyn's 1978 Harvard address [<http://distributistreview.com/mag/wp-content/uploads/2010/07/Solzhenitsyn-Harvard-Address.pdf>] (section discussing the dictatorship by fashion).

USSR dissident Solzhenitsyn [<http://www.nytimes.com/books/98/03/01/home/26407.html>] , a maths and physics graduate, served as an artillery officer in the Red Army from 1941-5, and was decorated for gallantry, but in February 1945 he was arrested for making a critical reference to Stalin in a letter, receiving as punishment 8 years hard labor, before being exiled in 1953. He was refused permission to collect his Nobel Prize for literature in 1970, and then was arrested for treason in 1974. He moved to Vermont, USA, in 1975. USSR

dissidents were the major problem for the USSR "appeasers" in the Western media, scientific, and political unions during the Cold War, so the British Prime Minister met him on 11 May 1983 (UK National Archives document PREM 19/1103), expressing interest in his statement that "the West believed it had a free press but that in fact it had a censorship of fashion." [http://4.bp.blogspot.com/-lhqBHw-1ofE/Uf-WuK3bXiI/AAAAAAAAADUK/hU2vprUqK9M/s1600/Solzhenitsyn+visit+to+Downing+Street+11+May+1983.JPG]

[http://4.bp.blogspot.com/-lhqBHw-1ofE/Uf-

WuK3bXiI/AAAAAAAAADUK/hU2vprUqK9M/s1600/Solzhenitsyn+visit+to+Downing+Street+11+May+1983.JPG]

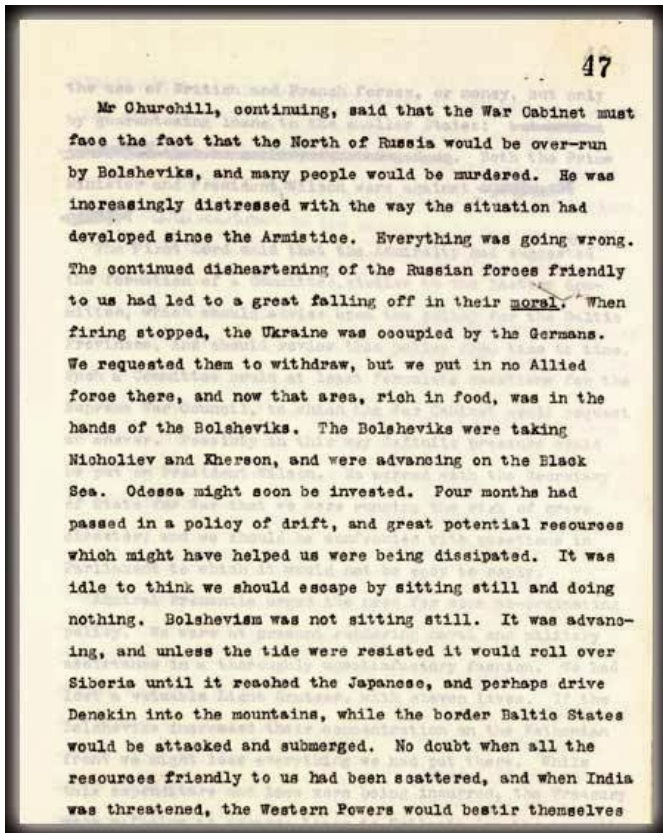
Solzhenitsyn explained that Lenin in 1919 created Comintern to destroy Western capitalism: "The worst thing about the Politburo was [that] ... Marxism ... obliged them to act in certain ways. ... He did not believe that there would be a nuclear war. For a **nuclear threat was sufficient to paralyse an adversary.**"

[http://4.bp.blogspot.com/-lhqBHw-1ofE/Uf-

WuK3bXiI/AAAAAAAAADUK/hU2vprUqK9M/s1600/Solzhenitsyn+visit+to+Downing+Street+11+May+1983.JPG]

"Collective fear stimulates herd instinct, and tends to produce ferocity toward those who are not regarded as members of the herd." — Bertrand Russell, *Unpopular Essays*

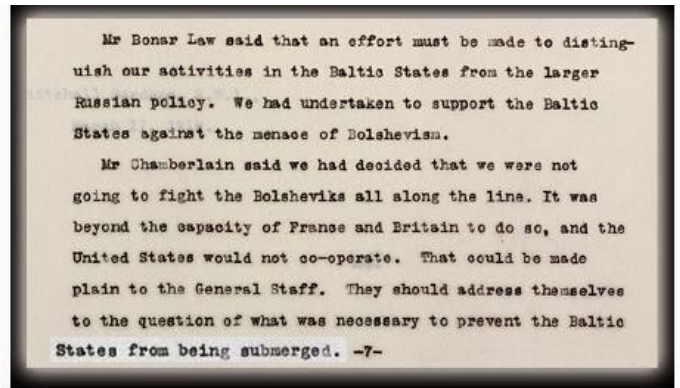
"Neither a man nor a crowd nor a nation can be trusted to act humanely or to think sanely under the influence of a great fear." — Bertrand Russell, *Unpopular Essays*



British War Cabinet minutes, March 1919: Winston Churchill on commies.



1919 Bolshevik commie propaganda poster shows anti-commie Russian commanders Yudenich, Kolchak, Denikin as dogs controlled by Uncle Sam.



**Austen Chamberlain
(Chancellor of the Exchequer in 1919 and brother of Nazi appeaser Neville Chamberlain)
refused to fight the Russians.**



**28 February 1961 Daily Mail
shows treatment for USSR protestors
(Bertrand Russell of the CND
"Committee of 100" being carried off)**

[<http://3.bp.blogspot.com/-rAP8MZauk1I/Up3oetQhAtI/AAAAAAAAEGs/JX1P6n1NNB0/s1600/Bertrand+Russell.JPG>]

Solzhenitsyn was not the only man of peace to defect from the USSR. Colonel Oleg Penkovsky was executed by Khrushchev's thugs by firing squad on 16 May 1963 (photo below from *Sbornik*, the KGB magazine) after he leaked [photographs of top secret classified nuclear war planning employment documents from the USSR "Military Thought" journal to the West \(example linked here\)](#) [<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n472/mode/1up>] :



[[http://2.bp.blogspot.com/-](http://2.bp.blogspot.com/-Hr1iZSYATXk/UpujRYZL3zI/AAAAAAAAEFY/DkzFa-yQOZw/s1600/OLEG+PENKOVSKY+gets+firing+squad+16+May+1963+photo+from+Sbornik+the+KGB+magazine.jpg)

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[yQOZw/s1600/OLEG+PENKOVSKY+gets+firing+squad+16+May+1963+photo+from+Sbornik+the+KGB+magazine.jpg](http://2.bp.blogspot.com/-Hr1iZSYATXk/UpujRYZL3zI/AAAAAAAAEFY/DkzFa-yQOZw/s1600/OLEG+PENKOVSKY+gets+firing+squad+16+May+1963+photo+from+Sbornik+the+KGB+magazine.jpg)]

Always look for people's reactions to alternative solutions to problems. If they dismiss alternative ideas *without objectively evaluating them*, their own "argument" is likely based on the threatening and false dictatorship premise: "you must do as I say, because there are *no alternatives* to doing so!" This dictatorial out of hand *dismissal of alternative ideas*, combined with fear-mongering terrorism designed to "close down arguments" before they have occurred, is designed to *prevent and deter* effective, *objective thinking*. The "pacifists" who use lying exaggerations and claims that "there are no alternatives to disarmament/surrender" (dismissing civil defense countermeasures, deterrence, and all out possible solutions) are using unjustified and unjustifiable deceptions. This occurred with poison gas back in the 20s and 30s (illustrations below are adapted from "[Debunking Poison Gas War Scares](http://blog.modernmechanix.com/debunking-poison-gas-war-scares/)" in the July 1935 issue of *Modern Mechanix* [<http://blog.modernmechanix.com/debunking-poison-gas-war-scares/>] and "[Gas Masks for All](http://blog.modernmechanix.com/gas-masks-for-all/)" in the *Modern Mechanix*, March 1937 issue [<http://blog.modernmechanix.com/gas-masks-for-all/>]):

DEBUNKING *Poison* *Gas* WAR SCARES

by CAPTAIN GEORGE J. B. FISHER,
Chemical Warfare Service, U. S. Army

ENORMOUS cities blanketed with death-dealing gas fumes. Citizens rushing about in panic as enemy planes roar overhead. Thousands of lives snuffed out in a few minutes. Countless humans coughing and screaming with fear, fighting among themselves to reach subterranean gas-proof cellars.

This is the terrifying picture so frequently painted by fiction writers, the movies, and the

20 milligrams of mustard gas absorbed into the lungs will cause death. At first glance it would seem, therefore, that 12,000 tons of this chemical could wipe out a third of the population of the United States.

sensational press about the horrors of poison gas in the next war.

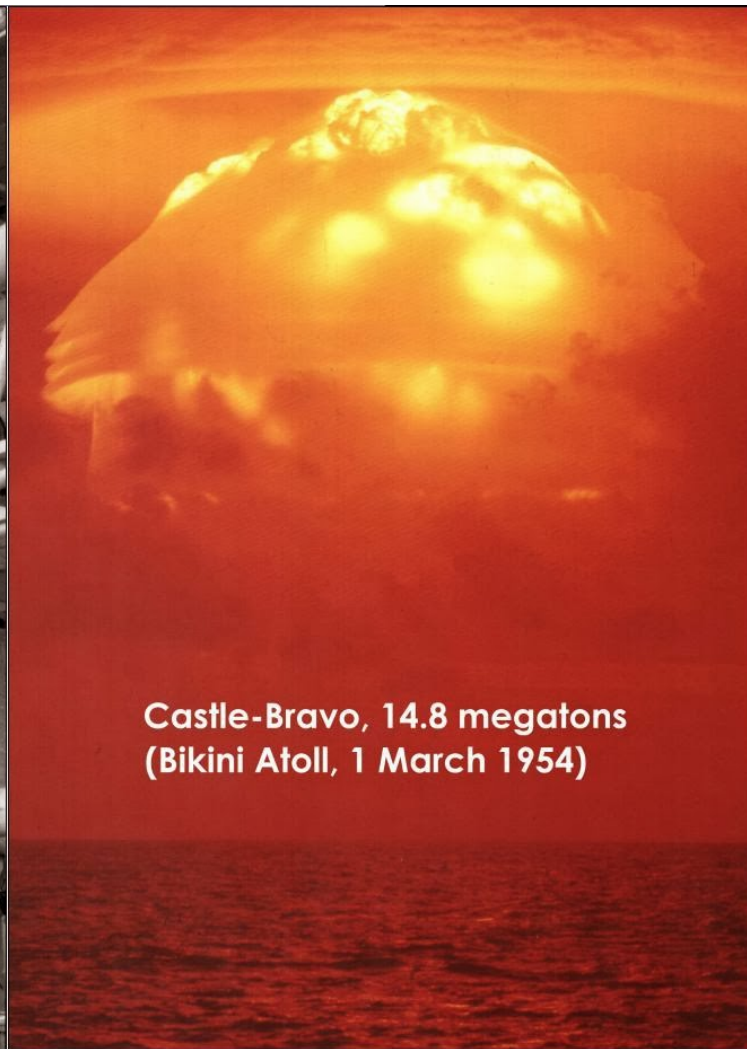
But is the picture a true one? Is there any basis in fact for it? No, says the Chemical Warfare Service of the United States Army. After more than twenty years experimentation with every kind of poison gas known to science, the nation's acknowledged authority on the subject has come to the conclusion that gas is the "bogey man" of war.

There is a very simple reason why most poison gases are not more destructive and that is because weather conditions tend to reduce the harmful chemical effects to a minimum. A wind blowing at the rate of only four miles per hour, for instance, can move a huge cloud of deadly gas from a given region at the rate of 352 feet per minute. Result? Much of the chemical will be carried away over the heads of the people intended to be destroyed.



Smoke screens laid over a city by planes will make it difficult for enemy air raiders to launch bomb and gas attack. To drop gas raiding planes must fly low, making them vulnerable to anti-aircraft fire. No gas raids were attempted during the World War.

[http://1.bp.blogspot.com/-jRy5EjeF_Q/UpuppQUoKdI/AAAAAAAAEFw/vBX_6KGn-9E/s1600/gas_0.jpg]



[<http://4.bp.blogspot.com/-pyVCdvpPm0/UpulAzxl4qI/AAAAAAAAEFk/rfylg57qn8Q/s1600/Mike+and+Bravo.JPG>]

Above: 10 Megaton Mike (1952) and 15 megaton Bravo (1954) recur in CND-type propaganda, yet were dismissed by Professor Freeman Dyson in his 1984 book *Weapons and Hope*, where he points out that the 10-15 megaton bombs were absurdly large and obsolete by the time of his visit to Los Alamos in 1956, where people were working on much smaller, lighter devices to fit into the cramped warheads of missiles with precision, computer guided delivery. The shot below is 11 megaton Romeo:

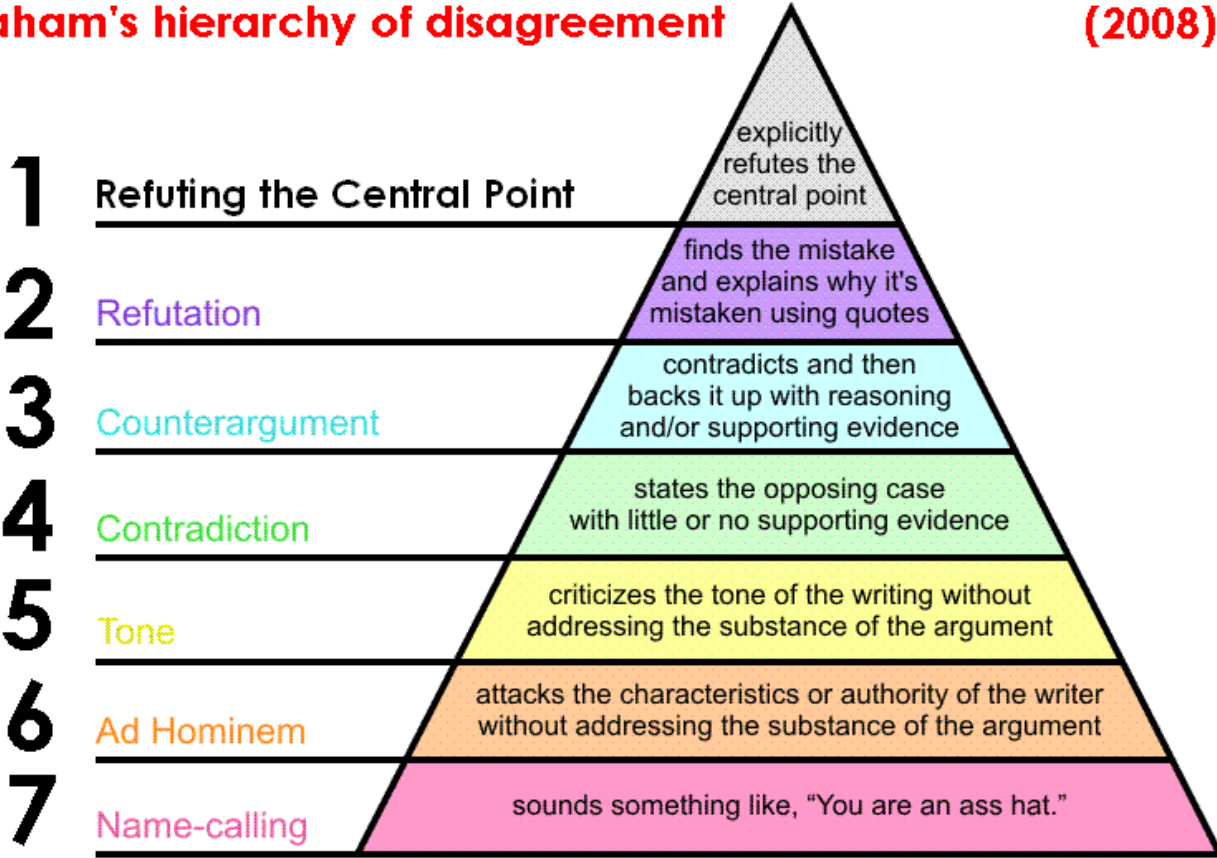
It's not easy to dig up the truth. It is easy to believe in plausible lies and brush off "alternatives" to those lies. Furthermore, as Janis explains in *Victims of Groupthink*, anyone can easily and cheaply earn kudos by dismissing the truth as false, using *ad hominem* [http://en.wikipedia.org/wiki/Ad_hominem] attacks on people while ignoring the substance of their factual argument (or picking out "strawman" trivia from the edges of an argument, and making a show out of charging it).



[<http://3.bp.blogspot.com/-QaEw-POxVVM/UpZ2dfBdpI/AAAAAAAAECs/we7ZwYisI8w/s1600/H+bomb+Castle+Romeo+11+megatons.JPG>]

Paul Graham's hierarchy of disagreement

(2008)



[\[http://2.bp.blogspot.com/-](http://2.bp.blogspot.com/-XbkHdigrXNQ/UpZewtLSC6I/AAAAAAAAECc/3n86b6tXbUE/s1600/Paul+Graham+hierarchy+of+disagreement.GIF)

[XbkHdigrXNQ/UpZewtLSC6I/AAAAAAAAECc/3n86b6tXbUE/s1600/Paul+Graham+hierarchy+of+disagreement.GIF\]](http://2.bp.blogspot.com/-XbkHdigrXNQ/UpZewtLSC6I/AAAAAAAAECc/3n86b6tXbUE/s1600/Paul+Graham+hierarchy+of+disagreement.GIF)

Above: this kind of simplistic "hierarchy of disagreement" *rhetori* [\[http://en.wikipedia.org/wiki/Rhetoric\]](http://en.wikipedia.org/wiki/Rhetoric) cal tool fails to address religious-like belief systems which are deliberately constructed with a network of multiple hubs, thus lacking any "central point" of specific foundation. You can't destroy the heart of a dispersed network that lacks a heart. Is the "central point" or heart of exaggerations like gross nuclear weapons effects lies the strontium-90 radiation, the blast, heat, firestorms, ozone layer damage, EMP, the fireball, or nuclear winter? If you painstakingly debunk all the exaggerations, the audience is too bored to listen, or forgets the earlier arguments that have been debunked and repeats the debunked arguments. This difficulty is like the debunking of communism by American counter-propaganda in the Vietnam war (or the debunking of Al Queda beliefs):

"The Americans came to our country and brought death and destruction to our people. They are aggressors and we Vietnamese are fighting the aggressors. We shall fight till final victory. ... Vietnam is a peace-loving country. We did not invade or bomb any country. It is the American presence in Vietnam that started the war and made the war continue so long. ... North Vietnam and South Vietnam are but one country. North Vietnam certainly has the right to help his brothers in the South and fight the aggressors. ... Vietnam belongs to the Vietnamese. The United States has nothing to do with our country."

- Vietcong cadre quoted by Konrad Kellen, *Conversations with Enemy Soldiers in Late 1968/Early 1969: A Study of Motivation and Morale*, RAND Corporation, RM-6131-1-ISA/ ARPA (AD0714834), September 1970, page 92 (originally secret). [\[http://www.rand.org/pubs/research_memoranda/RM6131-1.html\]](http://www.rand.org/pubs/research_memoranda/RM6131-1.html)

This Vietcong attitude was shared with many communist and Marxist socialist fellow-travellers, communist party members, politicians, and media personalities, and similar arguments today appear in the Western media with regards to Afghanistan. [Kellen's Vietnam RAND Corporation report \(DTIC document AD0714834\) summarizes this situation on page x: \[http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=AD0714834\]](http://oai.dtic.mil/oai/oai?verb=getRecord&metadataPrefix=html&identifier=AD0714834)

"Only by immersing himself in these responses can the reader obtain a genuine feeling of how high morale or how strong motivation is on the other side. ... The enemy's picture of the world, his country, his mission, and our role in his country is remarkable by its simplicity, clarity, and internal consistency. ... Finally, the responses are impressive by their straightforwardness. Unlike interviews with prisoners or defectors of World War II, the Korean War, or refugees from behind the Iron Curtain, these interviews reveal few attempts of the Vietnamese prisoners to ingratiate themselves with the interviewer, nor do these prisoners appear sullen. Prisoners report and explain, one is tempted to say, patiently, to the interviewer what they have experienced and what they believe and think. Analysis of the present material indicates that *neither our military actions nor our political or psywar efforts seem to have made an appreciable dent on the enemy's overall motivation and morale structure*. The findings also disclose, as in the aforementioned 1967 study of the enemy, that both morale and motivation in fighter and cadre ranks are unlikely to collapse under similar circumstances in the near future."

This high-enemy-morale problem was not new to America, of course, and in August 1945 the Japanese *kamakaze* [\[http://en.wikipedia.org/wiki/Kamikaze\]](http://en.wikipedia.org/wiki/Kamikaze) mentality was dealt with by the Democrat, President Harry S. Truman, using two nuclear weapons. The simplistic attitude of the Vietcong and Afghan insurgent is very similar to the hardened mindset of many people in the West today with regard to the supposed immorality or immense risks of low level radiation, civil defence against disasters, and nuclear weapons for cost effective and militarily effective counterforce deterrence (deterrence against military targets, not cities). Always, plausible-sounding authoritative-appearing consensus lies triumph in politics, the media and science, over

scientific objectivity based on hard facts because it tells people what they want to hear, which is not the truth! The truth always takes too long to explain, fails to provide funding eternal funding to researchers, or sounds "boring" or "old fashioned."

"Mundus vult decipi, ergo decipiatur." ("The people wish to be deceived, so let them be deceived.") Most prefer utopian hopeful fantasies to tough reality. They are ideologues who want to believe in contrived propaganda that reinforces their ideals:

"I use the term "groupthink" ... when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action. ... the group's discussions are limited ... without a survey of the full range of alternatives."

- Irving L. Janis, *Victims of Groupthink*, Houghton Mifflin, Boston, 1972, pp. 9-10

"The path of truth is paved with critical doubt, and lighted by the spirit of objective enquiry... Always the tendency continues to be shocked by natural comment, and to hold certain things too 'sacred' to think about. I can conceive no finer ideal of a man's life than to face life with clear eyes instead of stumbling through it like a blind man, an imbecile, or a drunkard – which, in a thinking sense, is the common preference. How rarely does one meet anyone whose first reaction to anything is to ask: 'is it true?' Yet, unless that is a man's natural reaction, it shows that truth is not uppermost in his mind, and unless it is, true progress is unlikely."

- Sir Basil Henry Liddell Hart, "Why Don't We Learn from History?", PEN Books, 1944; revised edition, Allen and Unwin, 1972.

Irving L. Janis, *Victims of Groupthink*, Houghton Mifflin, Boston, 1972, pp. 61, 197-8, and 206:

"The objective assessment of relevant information and the rethinking necessary for developing more differentiated concepts can emerge only out of the crucible of heated debate, which is anathema to the members of a concurrence-seeking group. [Factual arguments are being simply censored out as being shocking, distasteful, rude, aggressive, or provocative; see for instance James Newman's *Scientific American* "review" of Herman Kahn's book *On Thermonuclear War* in 1961!] ... symptoms run through the case studies of historic fiascoes ... an unquestioned belief in the group's inherent morality ... dissent is contrary to what is expected of all loyal members ... self-censorship of ... doubts and counterarguments ... a shared illusion of unanimity ... (partly resulting from self-censorship of deviations, augmented by the false assumption that silence means consent)... the emergence of ... members who protect the group from adverse information that might shatter their shared complacency about the effectiveness and morality of their decisions. [This is crucially important; in all cults there are kudos to be "earned" by lower-rank members who launch kamakaze-type emotional, subjective, screaming abuse on objective critics, or who repeatedly chant messages in the manner of George Orwell's sheep in *Animal Farm*.

These people act as official or unofficial gate-keepers of the cult, allowing the "leadership" to appear clean and quiet, if need be, not engaging with people smeared falsely as "warmongers" or "quacks" by the self-appointed gate-keepers formed of the lower ranks. By analogy, Hitler's SS and Khrushchev's KGB quietly dealt with critics using gas or the gulag, leaving the leadership looking pristine and pure, to shake hands with men like Prime Minister Chamberlain.]

"... other members are not exposed to information that might challenge their self-confidence. [Censorship of truth is the foundation of dogmatic lying cults; any disclosure of the facts is a kick

in the head for the liars, so they are protected legally in dictatorships where pseudo-laws are passed to send critics to Siberian salt mines, or to concentration camps. These "laws" and pseudo-lawyers can then scream that the critics are acting "illegally" and must be punished, the way that "pacifists" screamed "*thou shalt now kill*" whenever anyone suggested saving many lives by effectively dealing with Hitler, or Bin Laden.]"

There is also the problem of attrition through survival, where self-righteous enemy morale ensures that even when they are "clearly defeated" as in the case of Japan by August 1945, they adopt a "survivalist" strategy, waiting for the enemy to bankrupt itself, to become weary of the human costs of war, or to doubt victory:

"Most [Vietcong] interviewees believed the war would last a long time and would end not in a VC [Vietcong] military victory, but in a gradual exhaustion of the enemy [America]." [http://www.rand.org/pubs/research_memoranda/RM4507z3.html]

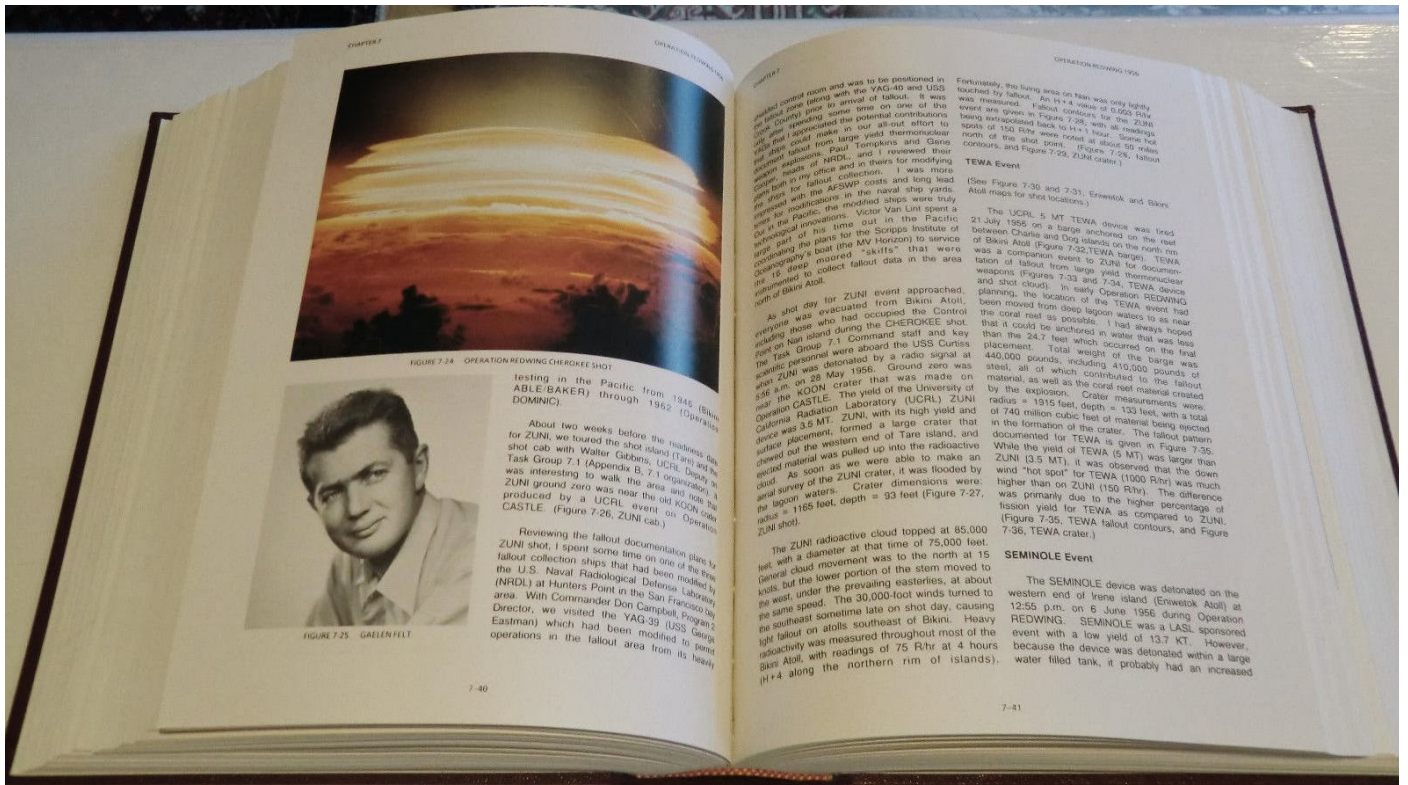
[http://www.rand.org/pubs/research_memoranda/RM4507z3.html]

- John C. Donnell, Guy J. Pauker and Joseph J. Zasloff, *Viet Cong Motivation and Morale in 1964: A Preliminary Report*, RAND Corp RM-4507/3-ISA (DTIC document AD0738742), March 1965, page xiii. (Originally secret.) [http://www.rand.org/pubs/research_memoranda/RM4507z3.html]

What's important here is that the hard pacifist left frequently put out propaganda claiming that in August 1945, America had won against Japan without needing to drop nuclear weapons; yet it takes the opposite attitude to the situation in Vietnam twenty years later where it stresses that despite terrific bombing (730 pounds of TNT per person in Vietnam, and 3,000 pounds per person in prime target areas), America was not "winning" [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n471/mode/1up] . The reason is psychological:

"The interviews indicated that U.S. efforts to explain the air raids on North Vietnam had failed to eradicate the impression among the people of the North that the raids were unprovoked acts of U.S. aggression." [http://www.rand.org/pubs/research_memoranda/RM4911-2.html]

[http://www.rand.org/pubs/research_memoranda/RM4911-2.html] - L. Goure, A. J. Russo, and D. Scott, *Some Findings of the Viet Cong Motivation and Morale Study: June-December 1965*, RAND Corp RM-4911-2-ISA/ARPA (ADA032192), February 1966, page ix (originally secret). [http://www.rand.org/pubs/research_memoranda/RM4911-2.html]

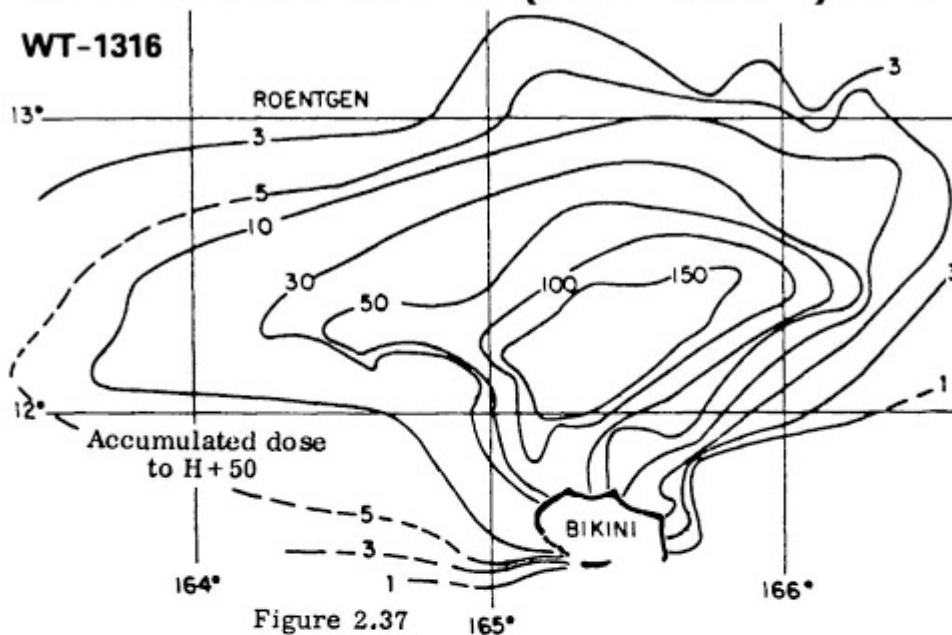


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[yut1bl3liKY/UpJ3p3F1eFI/AAAAAAAAEUBU/7t7CJIG2I48/s1600/Shelton+Reflections+of+a+Nuclear+Weaponeer+c.jpg](http://1.bp.blogspot.com/-yut1bl3liKY/UpJ3p3F1eFI/AAAAAAAAEUBU/7t7CJIG2I48/s1600/Shelton+Reflections+of+a+Nuclear+Weaponeer+c.jpg)]

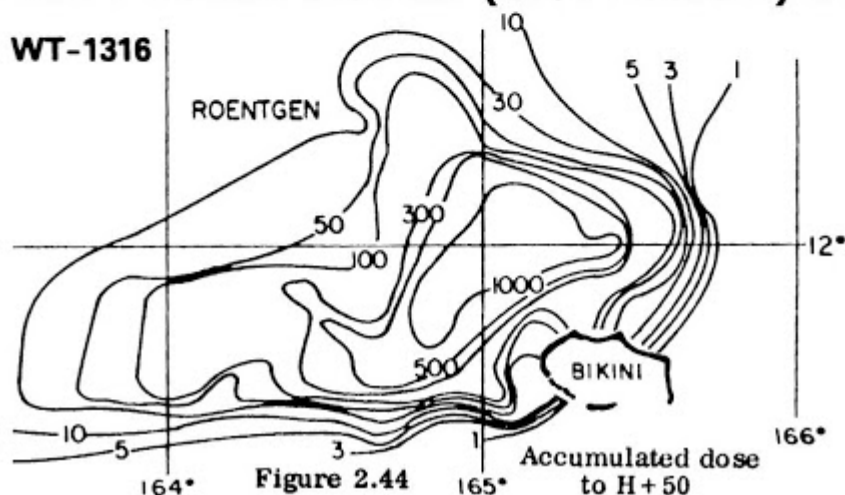
CLEAN BOMB: 3.53 MT (15% FISSION) ZUNI

WT-1316



DIRTY BOMB: 5.01 MT (87% FISSION) TEWA

WT-1316



[http://1.bp.blogspot.com/-iVa7tCo_IKg/UegnrkIW95I/AAAAAAAAAD0w/zPnlhX_fkbg/s1600/clean+bomb+fallout.JPG]

ABOVE: Dr Frank H. Shelton, author of *Reflections of a Nuclear Weaponeer* (1989, illustrated above), was the 1950s Technical Director of the AFSWP (Armed Forces Special Weapons Project) and organized the fallout research project at Operation Redwing which compared directly the fallout from clean and dirty nuclear weapons (see illustration above, taken from US nuclear test report WT-1316, of the ship measured land-equivalent 48 hour fallout doses from the 15% fission "clean" Zuni test compared to the 87% fission "dirty" Tewa test at Bikini Atoll).

[<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n411/mode/2up>]

Shelton states on page 7-41 of *Reflections of a Nuclear Weaponeer*: "TEWA was a companion event to ZUNI for documentation of fallout from large yield thermonuclear weapons. In early Operation REDWING planning, the location of the TEWA event had been moved from deep lagoon waters to as near the coral reef as possible. ... Total weight of the barge was 440,000 pounds, including 410,000 pounds of steel, all of which contributed to the fallout ... it was observed that the downwind 'hot spot' for TEWA (1000 R/hr) was much higher than on ZUNI (150 R/hr). The difference was primarily due to the higher percentage of fission yield for TEWA compared to ZUNI

[<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n413/mode/1up>]."

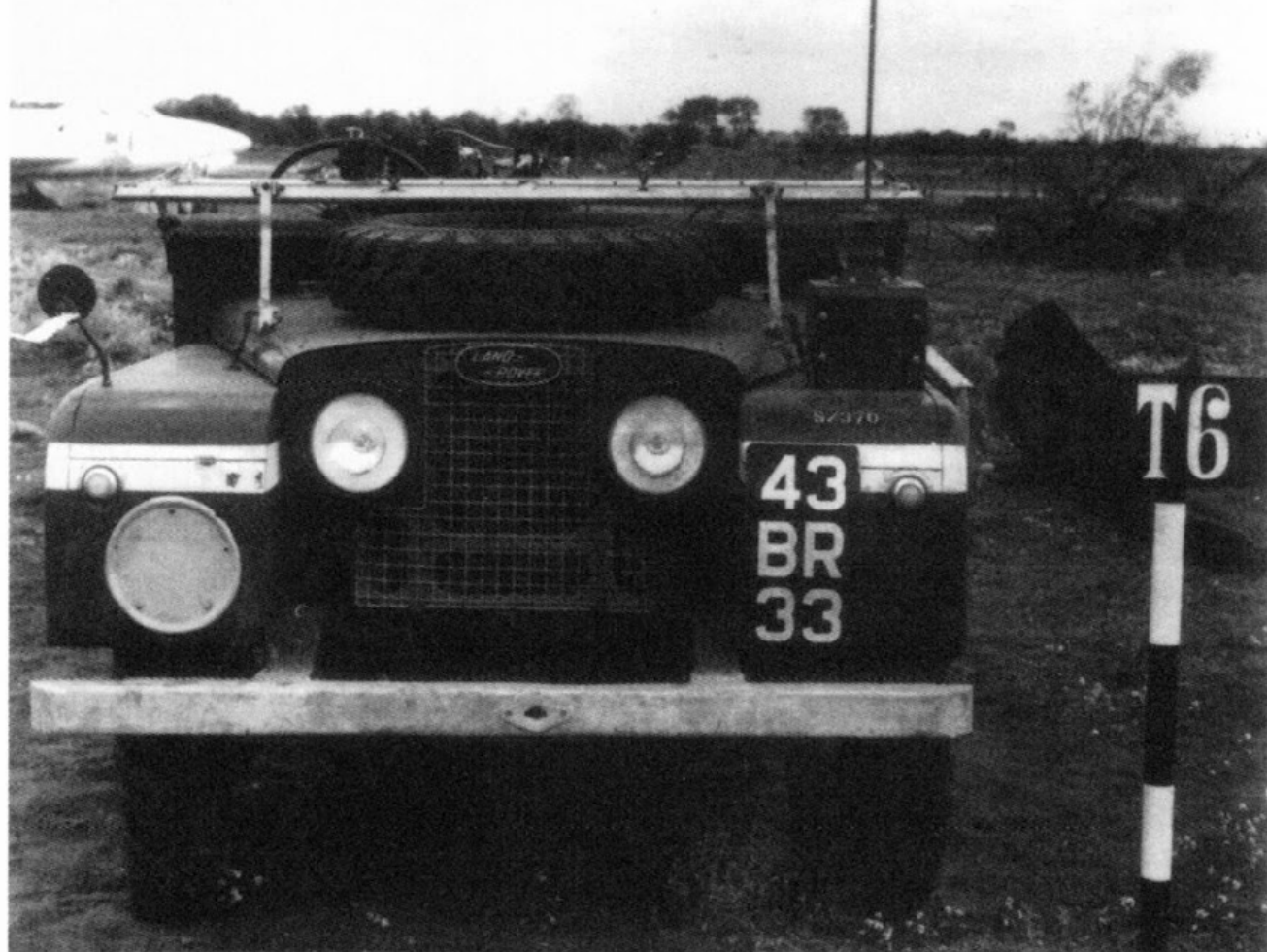
In other words, with a 15% fission nuclear weapon, fallout from 3.5 megatons was survivable even outdoors

without any protection from buildings whatsoever (for 3.5 megatons, the areas covered by imaginary "1 hour reference time" dose rates in R/hr are similar to the actual outdoor accumulated dose for the first 48 hours, at which time the dose rate is only 1% of the 1 hour level). So much for the unsurvivable clean bomb fallout myth.

[<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n411/mode/2up>]

Buffalo-1 (12.9 kt), 600 yards

Land Rover 43BR33 BEFORE BLAST:



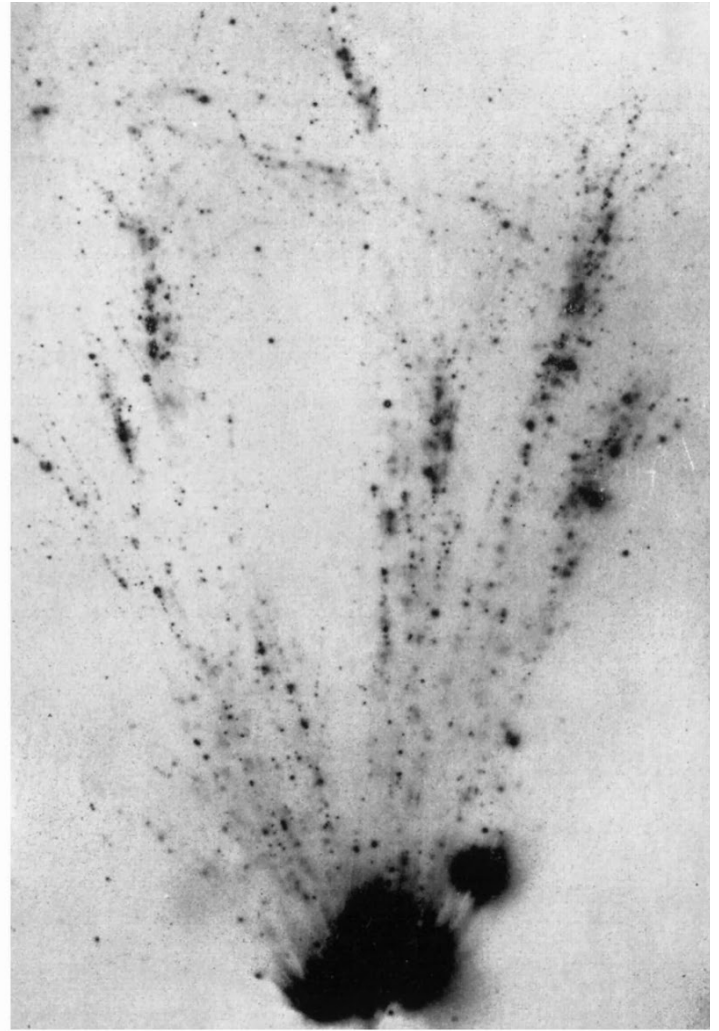
Land Rover 43BR33 AFTER BLAST:





[http://1.bp.blogspot.com/-0O6y4q9fgj8/UoeMzxbIjAI/AAAAAAAAD_I/m_BCN5vfnzI/s1600/Bufalo+1.JPG]

ABOVE: the precursor (due to thermal-flash "popcorned" desert sand grains which loaded hot, dense dust into the blast wave near the ground) produced spectacular blast effects on Land Rover cars (British jeeps) at 600 yards from ground zero in the 12.9 kt Buffalo-1 nuclear test at Maralinga in 1956 [<http://www.iwm.org.uk/collections/item/object/1060022261>] . But, fortunately for civil defense, and unfortunately for the nuclear exaggerations propaganda that tries to compare unobstructed desert blast effects with actual nuclear attack blast effects in cities, *a precursor doesn't form over concrete*. Thermal shadowing by buildings is accompanied by radiation and blast energy absorption by buildings, reducing the range of effects dramatically. Desert nuclear tests were unobstructed and exaggerated the effects of nuclear weapons from the perspective of modern concrete based cities. (Image source: UK National Archives document reference WO 320/2: [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34280>] *Operation Buffalo, effects of blast on Land Rover test vehicle*, 1956. [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34280>] " [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34280>] Copyright clearance for publication is not required," *because taxpayers paid for nuclear research* [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34280>] . See also images here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34281&index=55&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34282&index=58&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34276&index=42&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34283&index=56&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34291&index=57&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34286&index=47&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=11573&index=30&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34286&index=47&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34277&index=43&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] , and here [<https://images.nationalarchives.gov.uk/assetbank-nationalarchives/action/viewAsset?id=34288&index=52&total=67&categoryId=176&categoryTypeId=3&collection=Nuclear%20energy&sortAttributId=0&sortDescending=true>] .



Ryegrass (*Lolium perenne*) after 15 kt Buffalo-1 tower shot at Maralinga

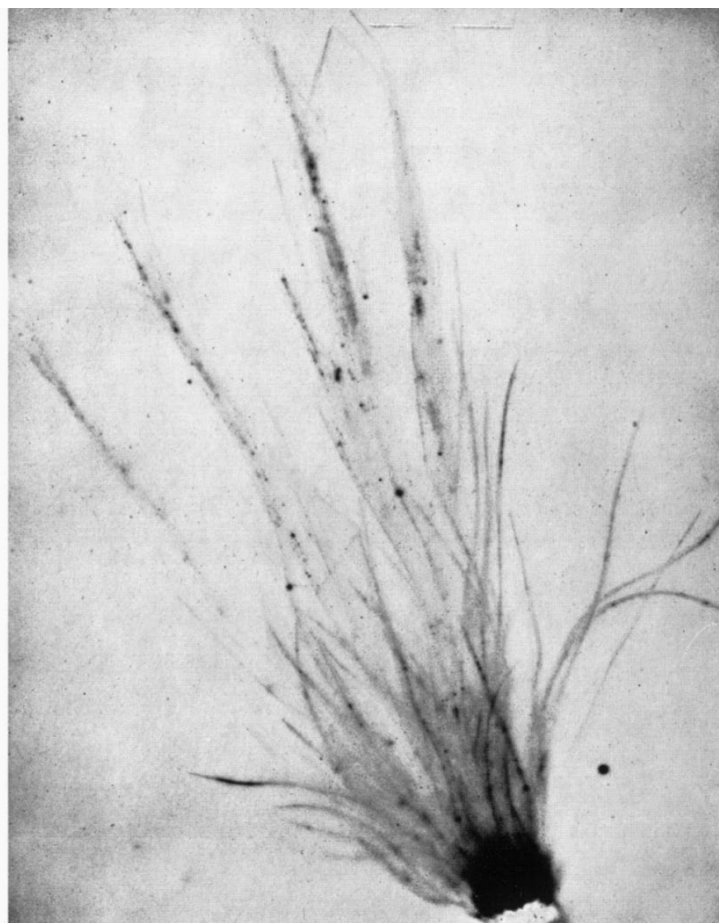
[[http://2.bp.blogspot.com/-](http://2.bp.blogspot.com/-cgdIG46Rdss/UoebnkCI4DI/AAAAAAAAAD_o/lpeFxPC1gHU/s1600/Bufalo+1+fallout+on+crops.JPG)

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Above: X-ray film reveals that most fallout particles were retained at the stem base of grass, in civil defence research at the 1956 Maralinga tower burst Buffalo-1, as reported by John Freeman Loutit and Robert Scott Russell, *Operation Buffalo, Part 5, The entry of fission products into food chains*, AWRE-T57/58, May 1959. Table 27 in this report shows that the water solubility of Buffalo-1 fallout was 80% for strontium nuclides (-89, -90, etc.) and iodine nuclides (-131, -132, -133, -135), 40% for Ba/La-140, 35% for Te-132 and Mo-99, 5% for Zr/Nb-95, and only 3% for Ru/Rh-103 [<http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201>] . Thus “solubility” depends entirely upon the nuclide involved. It is misleading to quote a percentage solubility figure without saying which nuclide is referred to.

The percentage solubility in water of the "overall" beta or gamma activity will obviously vary with time after burst, due to the changing composition of the fission product activity, because short half life nuclides (like iodine-131) which predominate in fallout soon after the explosion, will not be present a few months later. [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n313/mode/2up>]

Maralinga has silicate topsoil which produced glass-type (Nevada like) fallout particles for the Buffalo-1 tower burst [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n353/mode/2up>] , but the calcium carbonate substrata produced flaky Bikini-type calcium oxide fallout for the Buffalo-2 surface burst [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n355/mode/2up>] (photos below).



Ryegrass (*Lolium perenne*) after 1.5 kt Buffalo-2 surface shot at Maralinga, after 2 cm rain

[[http://1.bp.blogspot.com/-LiCa2uyE-O8/Uoed5N-](http://1.bp.blogspot.com/-LiCa2uyE-O8/Uoed5N-0XLI/AAAAAAAAAD_0/9obXLzsLYEc/s1600/Bufferlo+2+fallout+on+crops.JPG)

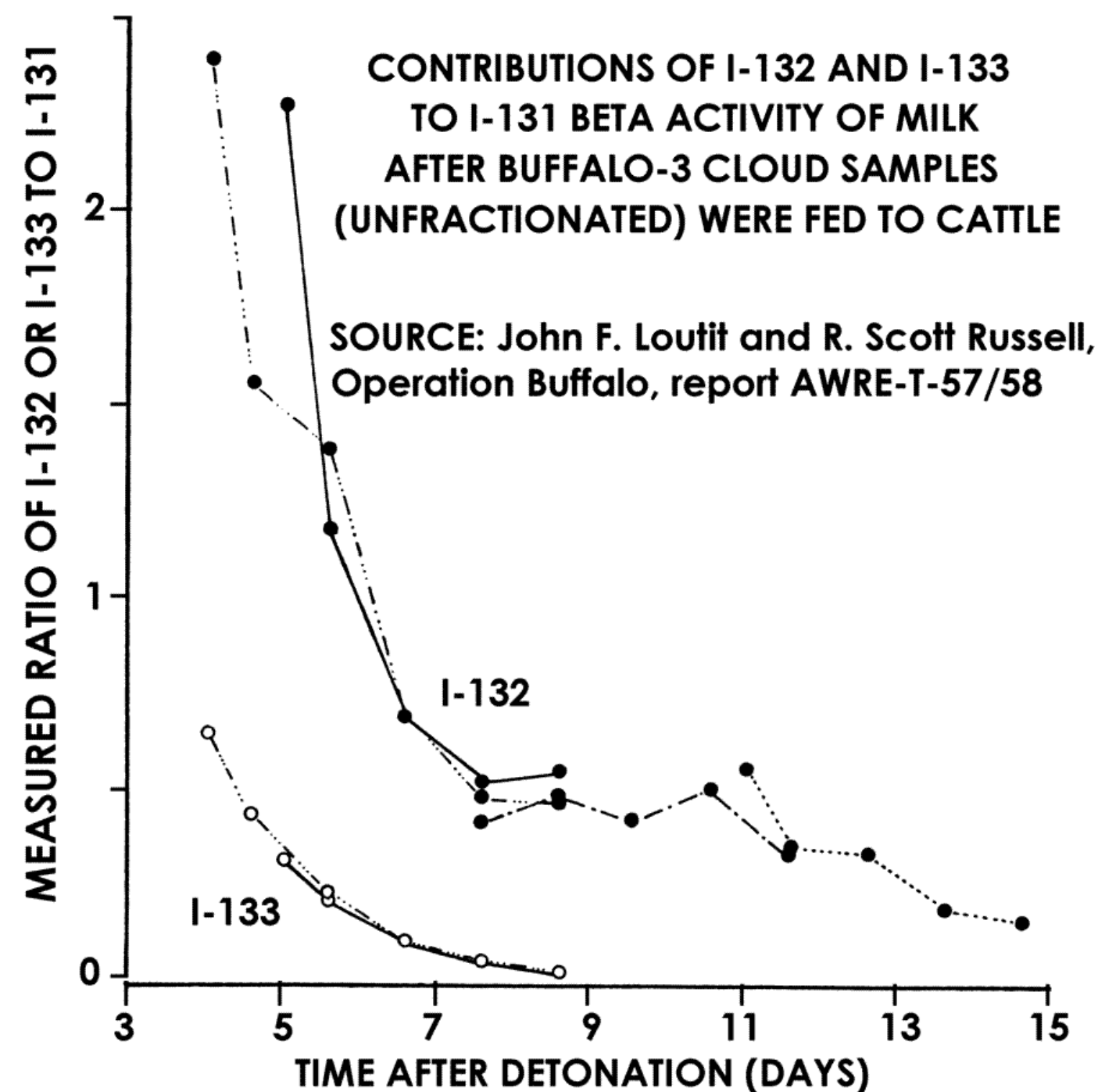
[0XLI/AAAAAAAAAD_0/9obXLzsLYEc/s1600/Bufferlo+2+fallout+on+crops.JPG](http://1.bp.blogspot.com/-LiCa2uyE-O8/Uoed5N-0XLI/AAAAAAAAAD_0/9obXLzsLYEc/s1600/Bufferlo+2+fallout+on+crops.JPG)]

ABOVE: fallout on grass from the Buffalo-2 nuclear surface burst at Maralinga after 2 cm of unexpected rainfall, from John Freeman Loutit and Robert Scott Russell, *Operation Buffalo, Part 5, The entry of fission products into food chains*, AWRE-T57/58, May 1959. A total of 15% of the Buffalo-2 fallout was retained by pasture grass, mainly in the stem base, and the rain has smeared the leaves with a coating of calcium oxide fallout. [<http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201>]

Table 15 shows that threshing wheat after Buffalo-2 left 90% of the fallout on the chaff and only 10% on grain, and the authors spell out these implications plainly: "At a dose rate of 50 R/hr at 1 hour, 80 kg of flour would contain only 0.06 microcurie of Strontium-90. ... The hazards arising from the consumption of contaminated flour appear therefore to be smaller by a factor of more than a thousand than those arising from milk." [<http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201>]

Therefore, limiting fallout contaminated milk consumption for a month after a nuclear explosion is an adequate countermeasure for ingested fallout, while the iodine-131 decays. [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n367/mode/2up>] Contaminated milk need not be wasted: it can be frozen, powdered, or processed into cheese or ice-cream that can be stored for a month while iodine-131 decays with its 8 days half-life, during storage. Alternatively, cattle can be kept in barns on winter fodder while the iodine-131 decays on fields outdoors. Temperature has no effect on radioactive decay, so it is safe to freeze radioactive fallout contaminated food while it undergoes rapid radioactive decay! (A more "hairy chested" option where the projected iodine-131 thyroid dose is above 25 R or 25 cSv, which is preferred by some in the nuclear industry, is obviously to simply administer 130 milligram potassium iodate tablets daily, and keep consuming the contaminated milk and water as normal; the thyroid is flooded with stable iodine which effectively blocks uptake of radioactive iodine isotopes.) **Fallout uptake by the**

roots is relatively small and was well investigated in American nuclear tests. [http://web.engr.oregonstate.edu/~higley/Radioecology/Radioecology%20Exams/uptake%20of%20fission%20products%20by%20crop%20plants.pdf]



[http://2.bp.blogspot.com/-

KkQk1iEZTBY/UpfKiDjA3II/AAAAAAAAEC8/cVK46eTWGIk/s1600/AWRE+T+57+58+1959.GIF]

Above: John Freeman Loutit and Robert Scott Russell determined the ratio of I-132 and I-133 activities to I-131 in milk for unfractionated cloud samples from the Buffalo-3 nuclear bomb test (AWRE T-57/58, 1959). Within the first few days, most of the total iodine radioactivity is from I-132. For fractionated fallout close-in to a surface burst, I-132 is even more important because it is less depleted from the local fallout than is I-131 (click here to see the depletion factors for all the major isotopes of biological uptake importance). [https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n426/mode/1up] The thyroid doses for the Rongelap inhabitants (exposed to ingested fallout-contaminated water from an open rainwater-collecting cistern for the first two days after the 1 March 1954 15 megaton Bravo test, 115 miles downwind) were initially underestimated by calculations based solely on I-131

[<https://archive.org/stream/BiologicalAndEnvironmentalEffectsOfNuclearWar/1959-congress-nuclear-war-hearings#page/n113/mode/2up>] . Then in a paper published in April 1958 and reprinted in the June 1959 congressional hearings on the *Biological and Environmental Effects of Nuclear War*, Dr Gordon Dunning showed how the other iodine isotopes contribute to the early-time thyroid dose [<https://archive.org/stream/BiologicalAndEnvironmentalEffectsOfNuclearWar/1959-congress-nuclear-war-hearings#page/n129/mode/2up>] . Utilizing the experience of measuring iodine isotopes in UK milk during heavy nuclear testing by the USSR in 1961-62, the co-author of the Buffalo nuclear test fallout study, Robert Scott Russell of the Agricultural Research Council, Radiobiological Laboratory, England, wrote an interesting paper called "The Extent and Consequences of the Uptake by Plants of Radioactive Nuclides" which was published in the *Annual Review of Plant Physiology*, vol. 14 (June 1963), pages 271-294: [<http://www.annualreviews.org/doi/abs/10.1146/annurev.pp.14.060163.001415>]

"Iodine-131 is ... of concern primarily as a source of exposure of infants who consume appreciable quantities of fresh milk, partly because of the very small size of their thyroid glands in which it is concentrated, and partly because milk is usually the most highly contaminated food. Doses to infants from iodine-131 have on occasions been considerably higher than those from any other component of fallout; for example, towards the end of 1961 it was estimated from the analysis of milk that the thyroid glands of infants fed on fresh milk in the United Kingdom would have received about 170 mrem. ... Caesium-137 which was deposited on foliage of plants appears to be retained relatively similarly to strontium 90, and like strontium it is readily removed from foliage by rain [L. J. Middleton, *Intern. J. Radiation Biol.*, 1, 387-402, 1959]. The concentration of caesium-137 within different tissues which results from direct contamination, however, can contrast very markedly with that caused by strontium-90. This is due to the mobility of caesium-137 within tissues; thus nearly 30% of the caesium-137 which has been deposited on the foliage of potatoes may reach the tubers, as compared with less than 1% of strontium-89 [L. J. Middleton and H. M. Squire, *Agr. Res. Council Radiobiological Lab.*, Report ARCRL 8, pp. 60-61, H. M., Stationery Office, London, 1962]. ... Zinc-65, together with the induced activities, cobalt-59 and -60 and iron-55, has also been found to be the main source of radioactivity in fish and sea water soon after nuclear explosions [A. D. Welander, U. S. Atomic Energy Commission Report UWFL-55, 1958]. The low concentration of the carrier isotopes in water can cause these nuclides to be absorbed and concentrated to a spectacular extent in plants and animals [<https://www.osti.gov/opennet/servlets/purl/16083641-GlgD2a/16083641.pdf>] . *Plutonium*. Because of its very long half life and high toxicity to animals consideration has been given to the entry into plants of the fissile element plutonium. **A very slow rate of absorption is to be expected because it forms high valency (usually 4 or 6) ions; this has been confirmed in several studies** and, over 1.5 years, grass grown in pot culture may absorb **less than 0.0001% of that added to the soil** [L. Jacobson and R. Overstreet, *Soil Sci.*, 65, 129-34, 1948; and P. Newbould and E. R. Mercer, *Agr. Res. Council Radiobiological Lab.*, Report ARCRL 8, 81-82, H. M. Stationery Office, London, 1962]."

The two Operation Buffalo fallout effects report authors, John Freeman Loutit [http://en.wikipedia.org/wiki/John_Freeman_Loutit] and Robert Scott Russell [<http://www.britannica.com/EBchecked/topic/513207/Robert-Scott-Russell>] , both went on to debunk the longer term effects of fallout hype; see proof [here](https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n373/mode/2up) [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n373/mode/2up>] and [here](http://glasstone.blogspot.co.uk/2007/03/effect-of-dose-rate-not-merely-dose-on.html) [<http://glasstone.blogspot.co.uk/2007/03/effect-of-dose-rate-not-merely-dose-on.html>] .

The authors of AWRE-T57/58 (which was the basis for the agricultural fallout sections in the UK 1959 and 1974 *Nuclear Weapons* civil defence book published by HMSO):

<http://www.britannica.com/EBchecked/topic/513207/Robert-Scott-Russell>
<http://www.britannica.com/EBchecked/topic/513207/Robert-Scott-Russell>

Robert Scott Russell [<http://www.britannica.com/EBchecked/topic/513207/Robert-Scott-Russell>]

British botanist and mountaineer, became in 1957 the first director of the Agricultural Research Council Radiobiological Laboratory, a facility in the U.K. established to monitor and predict the consequences of nuclear fallout on food crops and human nutrition. He studied at Imperial

College in England and in 1938 joined the college's expedition to the Arctic island of Jan Mayen. There, along with research on the effects of the Arctic climate on plant metabolism, he reached the summit of the previously unclimbed northeast peak of the extinct volcano Beerenberg, thereby renewing the enthusiasm for climbing that he had developed during his boyhood in New Zealand (b. Feb. 14, 1913, Penge, Eng.—d. July 29, 1999, Wantage, Eng.)
[<http://www.britannica.com/EBchecked/topic/513207/Robert-Scott-Russell>]

John Freeman Loutit CBE FRS^[1] FRCP Also known as 'Ian'. (19 February 1910 - 11 June 1992) was an Australian haematologist and radiobiologist. ... He contributed significantly to the development of improved techniques for the storage and transfusion of blood during the Second World War. After the war he became a leading researcher in the then novel field of radiobiology. He established and ran the Medical Research Council's Radiobiology Unit at Harwell from 1947 to 1969. He gave the 1969 Bradshaw Lecture to the Royal College of Physicians on the subject of malignancies caused by radium. He was elected a Fellow of the Royal Society in 1963.^[1] His candidature citation read: [http://en.wikipedia.org/wiki/John_Freeman_Loutit]

"Distinguished for his experimental studies of tissue transplantation after lethal doses of ionising radiation. Skilful experiments led Loutit to form the opinion that, contrary to the prevailing view, the survival of irradiated mice after the implantation of haematopoietic tissue was due to colonization by living cells. The truth of this interpretation has been rapidly confirmed. Loutit was the first to recognize 'secondary disease' in irradiated mice restored by the transplantation of foreign cells, and his interpretation of the disease as the consequence of a reaction of the grafted cells against their recipient is now accepted. Loutit has further shown that a substantial proportion of mice with leukaemia can be cured by whole body irradiation followed by the grafting of bone marrow cells. Earlier, he separated the mechanisms of origin of congenital haemolytics and acquired icterus and developed a practical method of increasing the storage time of blood for transfusion. Loutit's work is fundamental to an understanding of the mechanism and repair of radiation injury and has important bearings on immunology and the study of leukaemias."^[2]
[http://en.wikipedia.org/wiki/John_Freeman_Loutit]

BETA ACTIVITY IN ISLAND AND LAGOON LIFE, MEASURED AT 30 DAYS AFTER 10 MT MIKE

SOURCE OF BASIC DATA: Lauren R. Donaldson, et al., *Radiobiological Studies at Eniwetok Atoll Before and Following the Mike Shot of the November 1952 Testing Program*, Applied Fisheries Laboratory, University of Washington, report UWFL-33 (WT-616), June 1953.

LAGOON ISLANDS (ENIWETOK ATOLL)	Japtan	Igurin	Rigili	Bogombogo- Bogallua	Engebi	Aomon- Aaraan	Runit
Live sample collection time (days after Mike detonation)	2	3	4	7	7	6	5
Distance from ground zero (km)	34	36	26	5.1	4.6	15	21
Lagoon water (Bq/g)	0.42	0.27	0.32	5.8	0.77		0.67
Reef coral (Bq/g)		9.2	250	50000	45000		580
Clam muscle (Bq/g)	0.92	2.5	13	900	170	38	33
Clam shell (Bq/g)		37	150	2100	750	300	65
Sea cucumber, body wall (Bq/g)	0.95	63	250	1800	870	980	200
Crab muscle (Bq/g)	0.81	1.7	30		6800	52	22
Crab shell (Bq/g)	2.7	20	380		13000	330	280
Lagoon plankton (Bq/g)		2300	1200	18000		1700	800
Omnivore fish muscle (Bq/g)	2.0	2.0	5.5	370	130	40	4.3
Omnivore fish bone (Bq/g)	5.5	4.0	15	2200	930	180	17
Carnivore fish muscle (Bq/g)	4.3	2.2	2.7	130	53	6.7	2.3
Carnivore fish bone (Bq/g)	5.0	6.3	7.7	270	130	30	11
Land plants (Bq/g)	4.0	270	1700		32000	1500	670
Lungs of rats (Bq/g)						17	
Muscle of rats (Bq/g)						16	
Bone of rats (Bq/g)						280	
Lungs of land birds, terns (Bq/g)			32				
Muscle of land birds, terns (Bq/g)	3.7	4.3	12			6.0	9.0
Bone of land birds, terns (Bq/g)	6.2	17	380			14	12

[http://3.bp.blogspot.com/_rGld4NI4nc/UpfUUB4eZ6I/AAAAAAAAEDM/KbFYXug3hyY/s1600/10+Megaton+Mike+1952+test+fallout+uptake+at+Eniwetok+Atoll.JPG]

As at Bikini Atoll (scene for 42 megatons of fission yield in 23 nuclear tests), *cesium-137 is only important in food chains in soil deficient in potassium, and cesium-137 uptake by crops at Bikini was diluted by adding potassium chloride fertilizer to soil (potassium is chemically similar to cesium, and thus works by the same dilution mechanism as iodine tablets for thyroid protection).* (Strontium-90 uptake isn't a problem, as illustrated in the previous post [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] .) Note also that Lawrence Livermore National Laboratory found that the "effective half-life of cesium-137 on Bikini, Eniwetak, and Rongelap Atolls is around 8 to 9.8 years", [<https://marshallislands.llnl.gov/bikini.php#prosp>] not the laboratory radioactive half life figure of 30 years! This is because cesium compounds are relatively water-soluble and cesium-137 (as with iodine-131 and strontium-90) is fractionated in fallout (coated on the outer surface of fallout dust, not fused inside the particles) [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n309/mode/2up>] so it dissolves in rain and is soon weathered out of the local environment, ending up in the ocean (where it's totally insignificant compared to the immense natural radioactivity of sea water from potassium-40). Similarly, if you eat cesium-137, it doesn't build up in your body with a 30 year half life, but is flushed out with water with an effective half life of only about 3 months! [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n371/mode/2up>]

"Large-scale field experiments on Bikini Island have been used to optimize the required amount and application rates of potassium (Figure 3). The results from these experiments show that a single application of 2000 kg per ha of potassium can be effective in reducing the cesium-137

uptake in coconut meat (and juice) to about 5% to 10% of the pretreatment level. Multiple applications (over several months) of the same total amount of potassium produce even better and more consistent results. Moreover, the concentration of cesium-137 in the coconuts following remediation remains low for an extended period of time, so the need for continuous effort and retention of scientific and technical expertise is minimized (Robison *et al.*, 2004)."

- <https://marshallislands.llnl.gov/bikini.php#remed> [<https://marshallislands.llnl.gov/bikini.php#remed>]

Planning for survival

Stay at Home

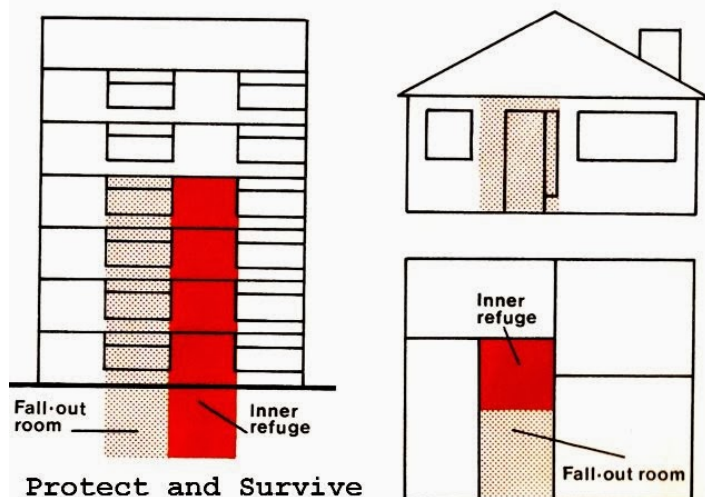
Your own local authority will best be able to help you in war. If you move away – unless you have a place of your own to go to or intend to live with relatives – the authority in your new area will not help you with accommodation or food or other essentials. If you leave, your local authority may need to take your empty house for others to use. So stay at home.

Plan a Fall-out Room and Inner Refuge

The first priority is to provide shelter within your home against radioactive fall-out. Your best protection is to make a fall-out room and build an inner refuge within it.

First, the Fall-out room

Because of the threat of radiation you and your family may need to live in this room for fourteen days after an attack, almost without leaving it at all. So you must make it as safe as you can, and equip it for your survival. Choose the place furthest from the outside walls and from the roof, or which has the smallest



Protect and Survive
UK Government, May 1980

amount of outside wall. The further you can get, within your home, from the radioactive dust that is on or around it, the safer you will be. Use the cellar or basement if there is one. Otherwise use a room, hall or passage on the ground floor.

Now the Inner Refuge

Still greater protection is necessary in the fall-out room, particularly for the first two days and nights after an attack, when the radiation dangers could be critical. To provide this you should build an inner refuge. This too should be thick-lined with dense materials to resist the radiation, and should be built away from the outside walls.

Here are some ideas:

Make a 'lean-to' with sloping doors taken from rooms above or strong boards rested against an inner wall. Prevent them from slipping by fixing a length of wood along the floor. Build further protection of bags or boxes of earth or sand – or books, or even clothing – on the slope of your refuge, and anchor these also against slipping. Partly close the two open ends with boxes of earth or sand, or heavy furniture.



[[http://2.bp.blogspot.com/-qgvK4ZUyys/Uo87ul-](http://2.bp.blogspot.com/-qgvK4ZUyys/Uo87ul-wJzI/AAAAAAAAEAU/61hNuMOQxQc/s1600/Protect+and+Survive+May+1980.JPG)

[wJzI/AAAAAAAAEAU/61hNuMOQxQc/s1600/Protect+and+Survive+May+1980.JPG](http://2.bp.blogspot.com/-qgvK4ZUyys/Uo87ul-wJzI/AAAAAAAAEAU/61hNuMOQxQc/s1600/Protect+and+Survive+May+1980.JPG)]

ABOVE: the May 1980 British Government "Protect and Survive" and "Domestic Nuclear Shelters" [<http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n223/mode/2up>] "civil defence handbooks, issued after the USSR invaded Afghanistan in 1979 and exceeded the USA in the nuclear arms race, was based on: (1) British government research on civil defence effectiveness at the Hiroshima and Nagasaki nuclear explosions (linked here) [<http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n211/mode/2up>] , (see also the list of reports linked here [<http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n265/mode/2up>]), (2)

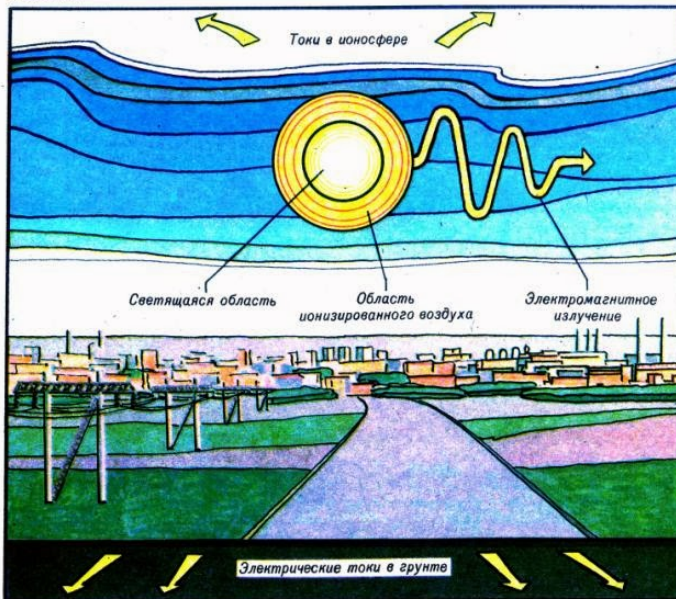
Australian-British Government research on civil defence at Operations Hurricane, Totem, Buffalo and Antler in nuclear tests in Australia from 1952-56 [https://archive.org/stream/BritishNuclearTestOperationHurricaneDeclassifiedReportsToWinston/HurricaneNuclearTestCivilDefenceData#page/n17/mode/2up] (see also here [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n239/mode/2up]), (3) Blitz bombing shelter experience in London during WWII [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n73/mode/2up] , and (4) radiation shielding experiments on improvised fallout shelters [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n263/mode/2up] . All of this is totally ignored by biased "historians" and politicians who falsely assert - contrary to hard evidence - that nothing can absorb thermal [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n351/mode/2up] and nuclear [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n389/mode/2up] radiation, extinguish fires in the Hiroshima firestorm with water buckets [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n315/mode/2up] , or deflect blast winds from a nuclear explosion [http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n273/mode/2up] .



[http://1.bp.blogspot.com/-

M_h9WkrOhmg/UnuHlzXjkUI/AAAAAAAAAD7Q/9hONddv6Yc0/s1600/USSR+Russian+nuclear+EMP+effects+poster+1980.JPG]

КРАТКОВРЕМЕННЫЕ РЕЗУЛЬТИРУЮЩИЕ ЭЛЕКТРИЧЕСКИЕ И МАГНИТНЫЕ ПОЛЯ, ВОЗНИКАЮЩИЕ ВО ВРЕМЯ ЯДЕРНОЙ РЕАКЦИИ ВСЛЕДСТВИЕ РАСПАДА АТОМОВ, ПРЕДСТАВЛЯЮТ СОБОЙ ЭЛЕКТРОМАГНИТНЫЙ ИМПУЛЬС (ЭМИ) ЯДЕРНОГО ВЗРЫВА. ЭЛЕКТРОМАГНИТНЫЕ ПОЛЯ СОЗДАЮТ ИМПУЛЬСНЫЕ ЭЛЕКТРИЧЕСКИЕ ТОКИ И НАПРЯЖЕНИЯ В ВОЗДУШНЫХ И НАЗЕМНЫХ ПРОВОДНЫХ И КАБЕЛЬНЫХ ЛИНИЯХ, А ТАКЖЕ РАДИОИЗЛУЧЕНИЯ, РАСПРОСТРАНЯЮЩИЕСЯ НА БОЛЬШИЕ РАСТОЯНИЯ



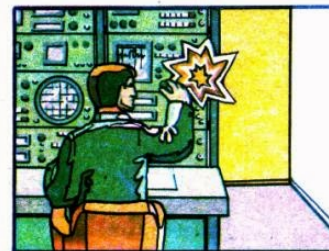
Е. П. КУЗЬМЕНКО, О. А. КОРОЛЕВ, В. И. ЗЕМИТАН
**ГРАЖДАНСКАЯ
ОБОРОНА**
издание пятое

КИЕВ

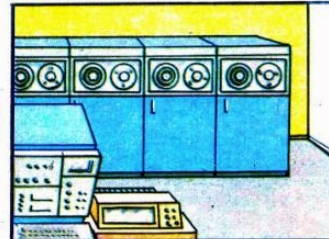
ГОЛОВНОЕ ИЗДАТЕЛЬСТВО ИЗДАТЕЛЬСКОГО ОБЪЕДИНЕНИЯ «ВИЩА ШКОЛА»

1986

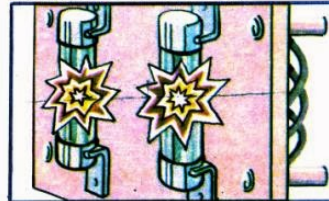
ВОЗНИКШИЕ ПРИ ЯДЕРНЫХ ВЗРЫВАХ ПЕРЕНАПРЯЖЕНИЯ СПОСОБНЫ:



выводить из строя аппаратуру и поражать обслуживающий персонал



искажать, полностью стирать магнитные записи, лишать «памяти» ЭВМ



вызывать короткие замыкания в электро- и радиотехнических устройствах, массовое срабатывание средств защиты

СПОСОБЫ ЗАЩИТЫ ОТ ЭЛЕКТРОМАГНИТНОГО ИМПУЛЬСА

Воздействие электромагнитного импульса на наружные и внутренние линии аппаратуры резко снижается при применении специальных мер защиты

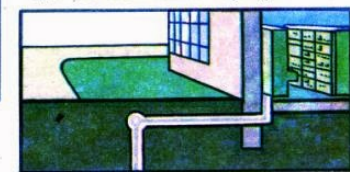


Наиболее эффективным способом защиты радиоэлектронной аппаратуры, расположенной в сооружениях, является использование электропроводящих (металлических) экранов, значительно снижающих наводимые напряжения



Применение экранированных кабелей; выполнение радио- и электротехнических устройств пблочно, с защитой каждого блока и всего устройства в целом

Надежное заземление аппаратуры



[<http://4.bp.blogspot.com/->

[rq7SMenstEc/UqN5bC0iGzI/AAAAAAAAEHM/i4GccM4Obi4/s1600/1986+USSR+EMP+civil+defense+poster.JPG](http://4.bp.blogspot.com/-rq7SMenstEc/UqN5bC0iGzI/AAAAAAAAEHM/i4GccM4Obi4/s1600/1986+USSR+EMP+civil+defense+poster.JPG)]

ABOVE: Secrecy on civil defense against nuclear weapons effects has always been a head-in-the-sand fallacy because potential enemies are well aware of the effects. For example, Russia tested nuclear weapons from August 1949 on, and had its own data on the effectiveness of civil defense countermeasures [<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n463/mode/2up>].

After three high altitude 300 kt nuclear explosions in 1962 for Russia's Operation K system proof test for the original Moscow ABM system, Russia gained extensive experience of EMP effects [<http://glasstone.blogspot.co.uk/2006/03/emp-radiation-from-nuclear-space.html>], so American secrecy was of no use in preventing Russian knowledge of EMP. It merely hinders free world (not communist world) civil defense [<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n479/mode/2up>].

There is no security in making civil defense effectiveness data unavailable to those who need it.



THE DISPATCH

Volume 3, Issue 2

Defense Threat Reduction Information Analysis Center

June 2013

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Contact Us

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or visit us at
www.dttriac.dtra.mil



From the Program Manager

Welcome! DTRA realigned DTRIAC from the J3/7 Operations/Exercise and Readiness Directorate to the J9 Research and Development Directorate, and I was designated as the Interim Program Manager (PM) for DTRIAC until a permanent PM is brought on board. I support Dr. Steven Wax, Chief Scientist, DTRA/J9ST. The J9 and J9ST look forward to having DTRIAC as part of our organization, and we plan to continue increasing awareness of DTRIAC functions and capabilities.

J9 personnel are excited to contribute articles on our various research efforts in support of DTRA's combating WMD mission. We also plan to finish the NextGen STARS development that was started under J3/7. Our goal is to improve the inclusiveness of and access to DTRIAC for the entire agency.

This issue of The Dispatch focuses on airblast phenomena. DTRA and its predecessor organizations have a long history of research in this area, and DTRA continues to perform a variety of research in this field. Some of the articles detail effects of nuclear detonation in an urban environment. Other articles describe airblast codes, which have been updated using improved modeling and methodology, and their validity in urban environments.

Please contact us directly if you ever have any questions or comments related to DTRIAC at dttriac@dtra.mil.

Thanks,



UPSHOT-KNOTHOLE: Mr. Inquest filming ENCORE test airblast, May 8, 1953

[[http://1.bp.blogspot.com/-](http://1.bp.blogspot.com/-UAVPJtagcFc/UmrGubp0ZbI/AAAAAAAAADzw/RChfO0xBndA/s1600/DTRIAC+Dispatch+2013+v3+issue+2.JPG)

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Building Effects on Airblast from Nuclear Detonations in Urban Terrain (continued)

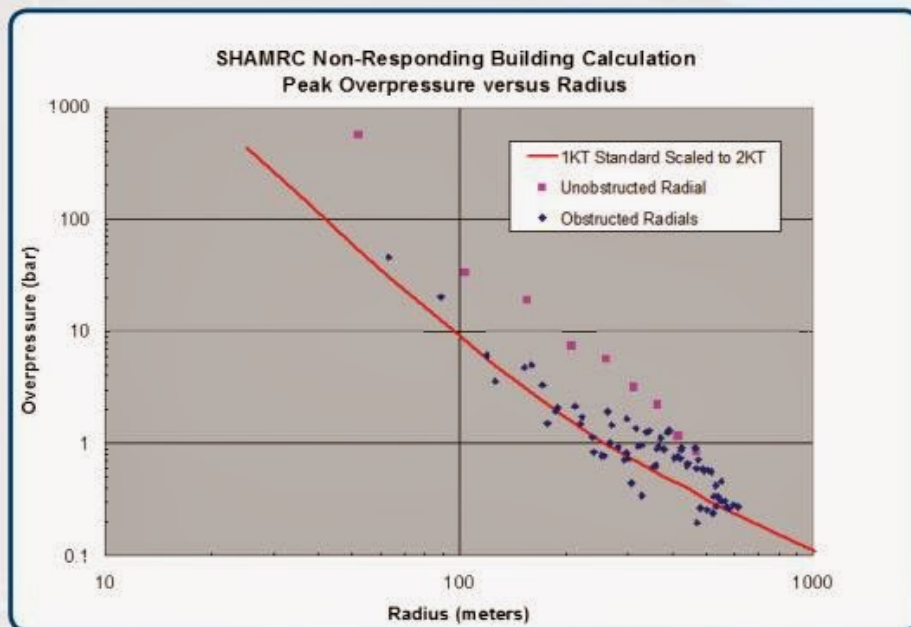


Figure 1. Urban pressure distribution along different radials (ARA, Inc.)

While the overpressure is drastically changed by the presence of buildings, the dynamic pressure is modified even greater in comparison to the ideal. The dynamic pressure is stagnated at each encounter with a building and is enhanced along streets and alleys. There are regions of nearly complete stagnation (no dynamic pressure) in regions that would have very high dynamic pressures over an ideal surface. The high dynamic pressures and dynamic impulses aligned with streets will move any loose objects such as cars, trucks, mailboxes, or sidewalk stands hundreds of feet. Cars will be piled on top of one another and block roads and access to buildings closer to the detonation point.

Many recent calculations have been criticized because they assume the buildings are nonresponding and perfectly rigid. The argument for this assumption is that the materials from which the structures are made have a density that is at least 2,000 times the density of air. This means that when a shock wave strikes a structure, the air will move 2,000 times farther than the structure in the same time interval. Thus while the building is moving 1 cm, the shock has moved more than 20 m, and the energy lost from the shock is a small fraction of 1% of the blast energy.

As an example of this behavior, an experiment was conducted at the Ernst Mach Institute in Freiburg, Germany, in which a model house was constructed of steel and exposed to a blast wave in a shock tube. Several shadowgraph pictures were taken as the shock wave engulfed the structure. Reflections from the walls and roof could be readily identified. A second model house was constructed from balsa wood using the same dimensions as the steel house and exposed to the same blast pressure.

When the shadowgraph pictures were compared, no distinction could be made between the steel and balsa wood shock reflections. The balsa wood model did not measurably move over the entire time of the shock interaction with the structure.

Another series of experiments^{1,2}, in the United Kingdom, were conducted with a model city built from solid concrete buildings. Pressure gauges monitored the loading at many points on buildings throughout the city. A high-explosive charge was detonated at a height of burst such that the Mach stem would be higher than the buildings as it passed over the model city. The experiments were criticized for using nonresponding structures. Therefore, the city was carefully reconstructed of thin mirror glass on light metal frames with the gauges installed at the same locations as the concrete city, and the experiments were repeated.

Building Effects on Airblast from Nuclear Detonations in Urban Terrain *(continued)*

Figure 2 shows overpressure traces from four locations within the city. First note that there is no difference in arrival time at any of the locations. The upper left waveforms (B89F) are from the front of a building near the farthest distance from the detonation. The waveforms on the upper right (B88B) were taken on the back of a building directly in front of B89. The waveforms on the lower left were from the roof of a building near the center of the city. The lower right waveforms are from the front of the building closest to the detonation. The red curves are from the concrete buildings and the blue curves are from the mirror glass buildings.

There is no appreciable difference between the waveforms. When all of the measured overpressure waveforms were compared, half of the gauges from the glass buildings were higher than those from the concrete buildings and half were below by about the same amount. Furthermore, the impulses showed the same relative amplitudes. The thin mirror glass corresponds to about an 8-inch-thick concrete wall at full scale, so this is indeed a realistic scale for responding buildings.

In conclusion, the blast overpressure in an urban environment is generally higher than for the free field. This is caused by reflections from buildings and funneling of energy down streets. For free field overpressures above approximately 5 psi, the urban pressures are nearly always higher at the same range. As the overpressures drop below about 2 psi, there are relatively more occurrences of overpressures below the ideal surface curve, but the majority of points are above the ideal curve. The approximation of using perfectly reflecting, nonresponding buildings has been proven true by multiple experiments.

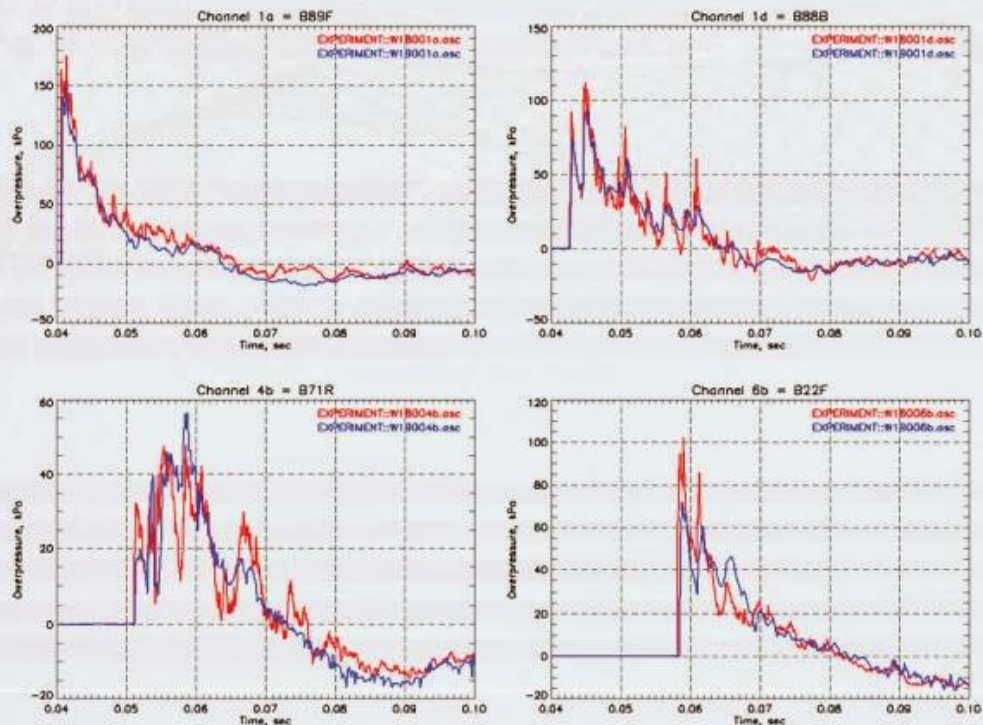


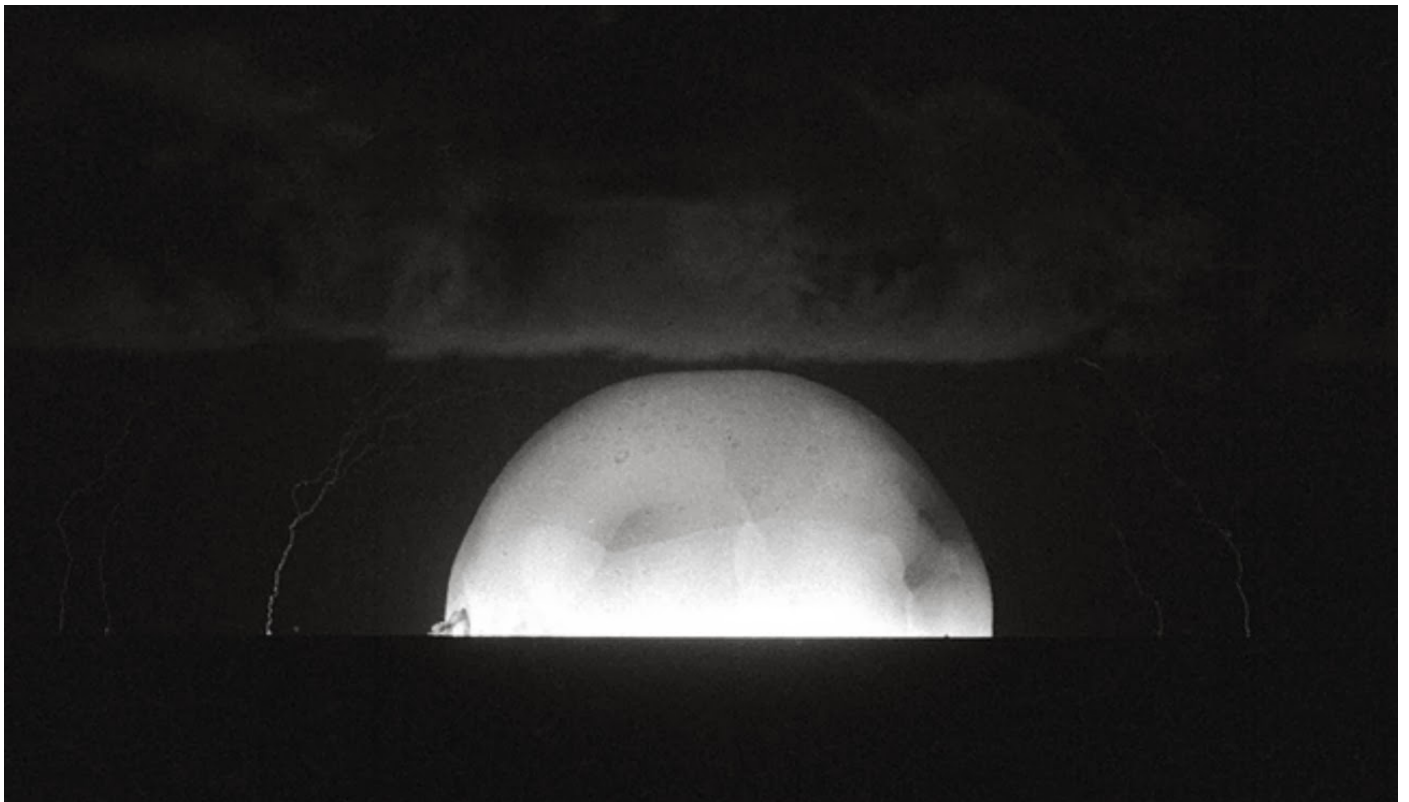
Figure 2. Comparisons of pressure records for concrete and mirror glass structures¹

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1. Martin, A.J., "WINDRUSH 18 - Multi-Storey Complex Flowfield Pressure Calculation," AWE Report Number AWE/DWE31/02/015; SSM/P724, February 2002 (unpublished).
2. Hunt, S., et al., "WINDRUSH High Explosive Tests," AWE (unpublished).

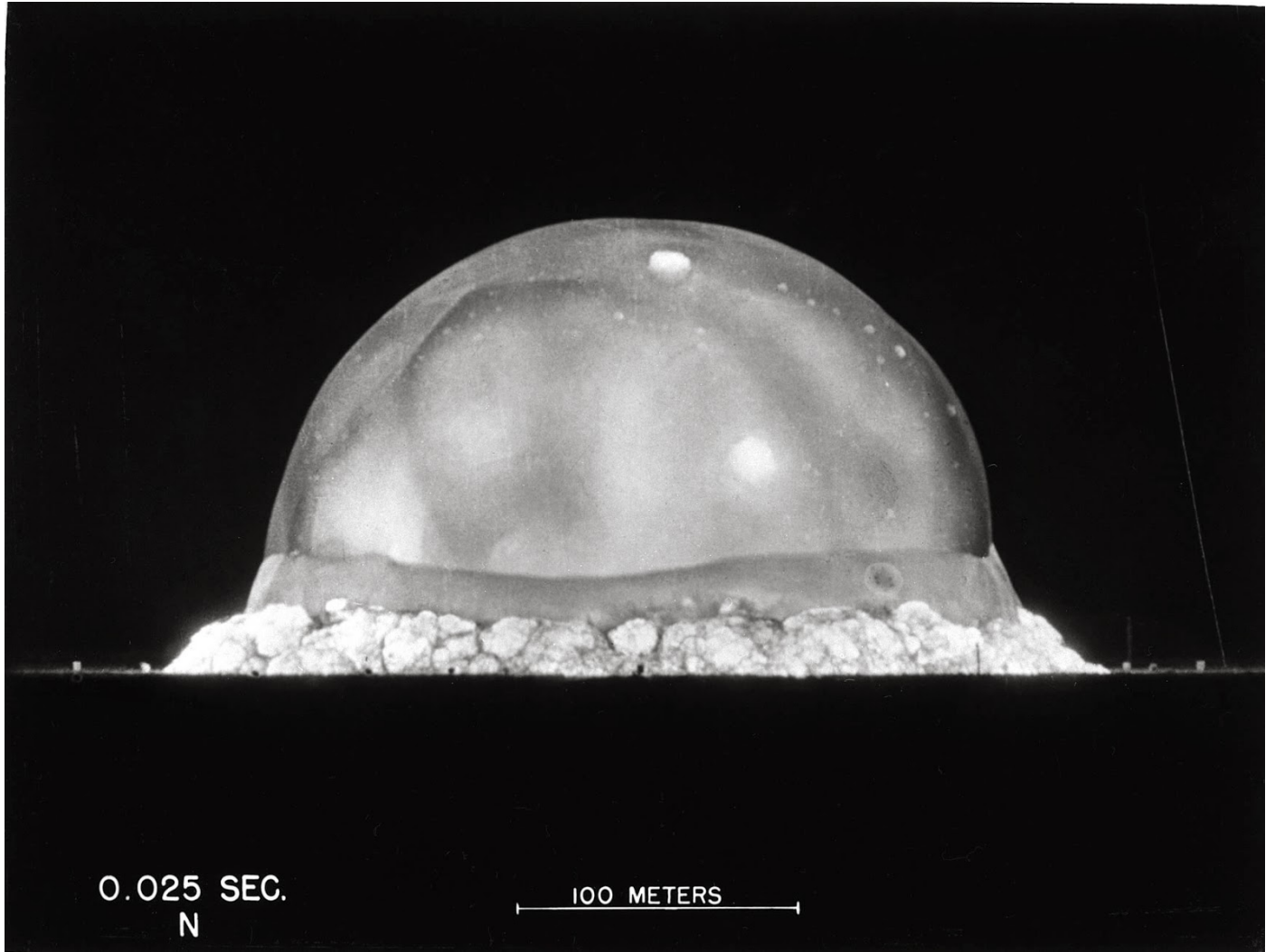


[http://2.bp.blogspot.com/-liXDxI2499Q/UoeUBgBAiMI/AAAAAAAAAD_Q/pMf-NN5DYt0/s1600/Mike+1952+nuclear+lightning.gif]



[<http://4.bp.blogspot.com/-7EqQFSyxa8k/UoO2Qa9udiI/AAAAAAAAAD8w/nuyd468XOdw/s1600/Mike+test+lightning+flashes+effect.JPG>]

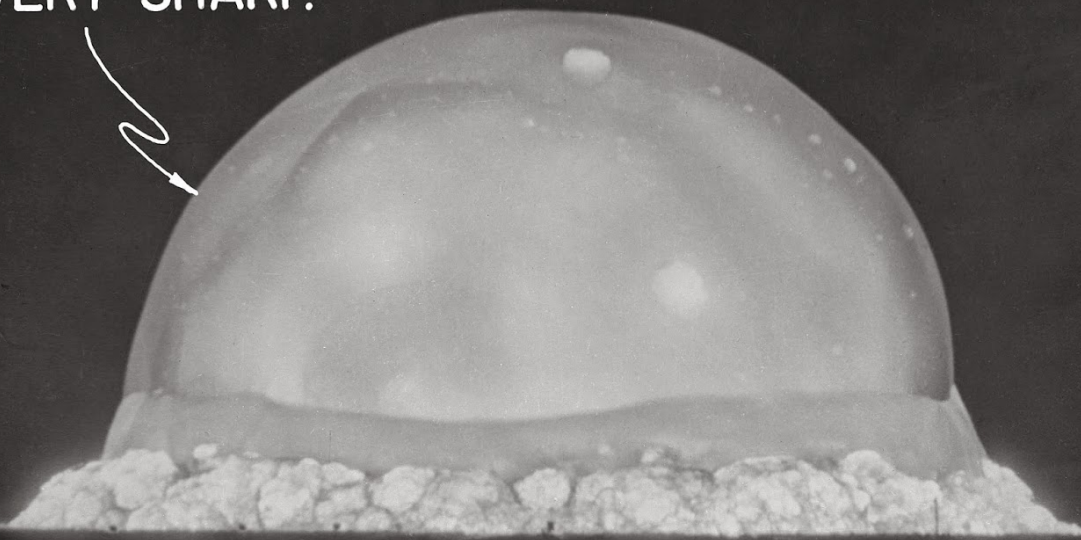
Above: Five flashes of lightning around the 1952 Mike nuclear test fireball; air ionization due to the initial nuclear radiation shorted out the natural potential of the atmosphere causing the discharges (as predicted by Enrico Fermi prior to the 1945 Trinity test). Contrary to the Glasstone and Dolan textbook, however, modern city skylines provide a typical 100 fold reduction in the transmission of initial radiation. On top of that concrete terrain shielding factor, there is additional shielding from the building a person is located within. [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] Below: Trinity test photos (16 July 1945, 19 kt on top a 100 ft tower at Alamogordo, New Mexico):



[<http://2.bp.blogspot.com/-u2MMWBLzvmA/UoO9pHW9oqI/AAAAAAAAAD9A/NB0D2ZIMz8w/s1600/Trinity+1.jpg>]

25 MS. N

THUS FAR THE FLAME FRONT AND THE SHOCK FRONT HAVE BEEN COINCIDENT, HENCE THIS EDGE IS VERY SHARP.

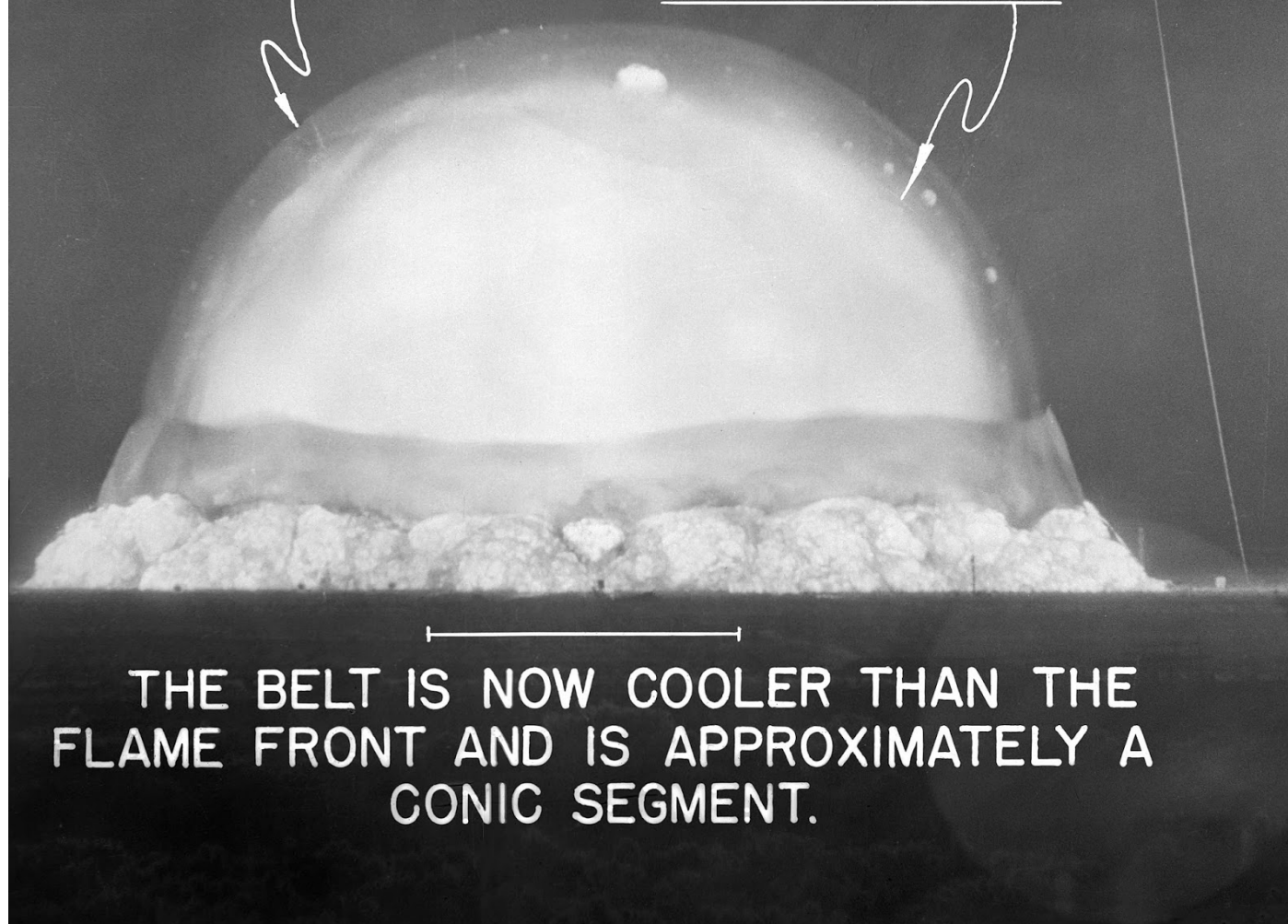


THE BELT IS NOW ABOUT THE SAME TEMPERATURE AS THE BALL OF FIRE.

[<http://1.bp.blogspot.com/-Yfhht4o6kKE/UoO-LJbkgFI/AAAAAAAAAD9I/QYLraGe-19Y/s1600/Trinity+4.jpg>]

34 MS.
N

THE SHOCK WAVE IS MOVING OUT
FROM THE FLAME FRONT.



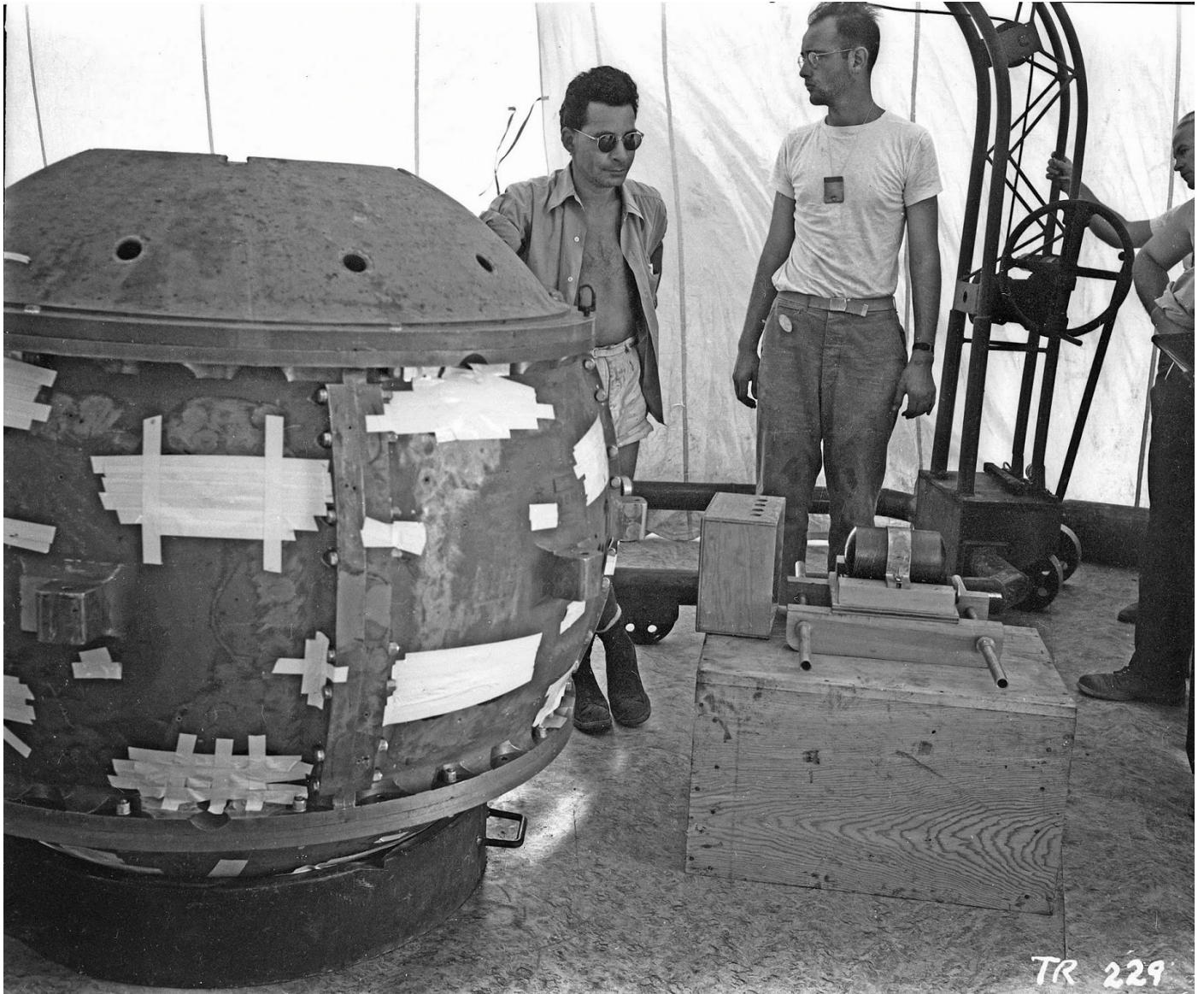
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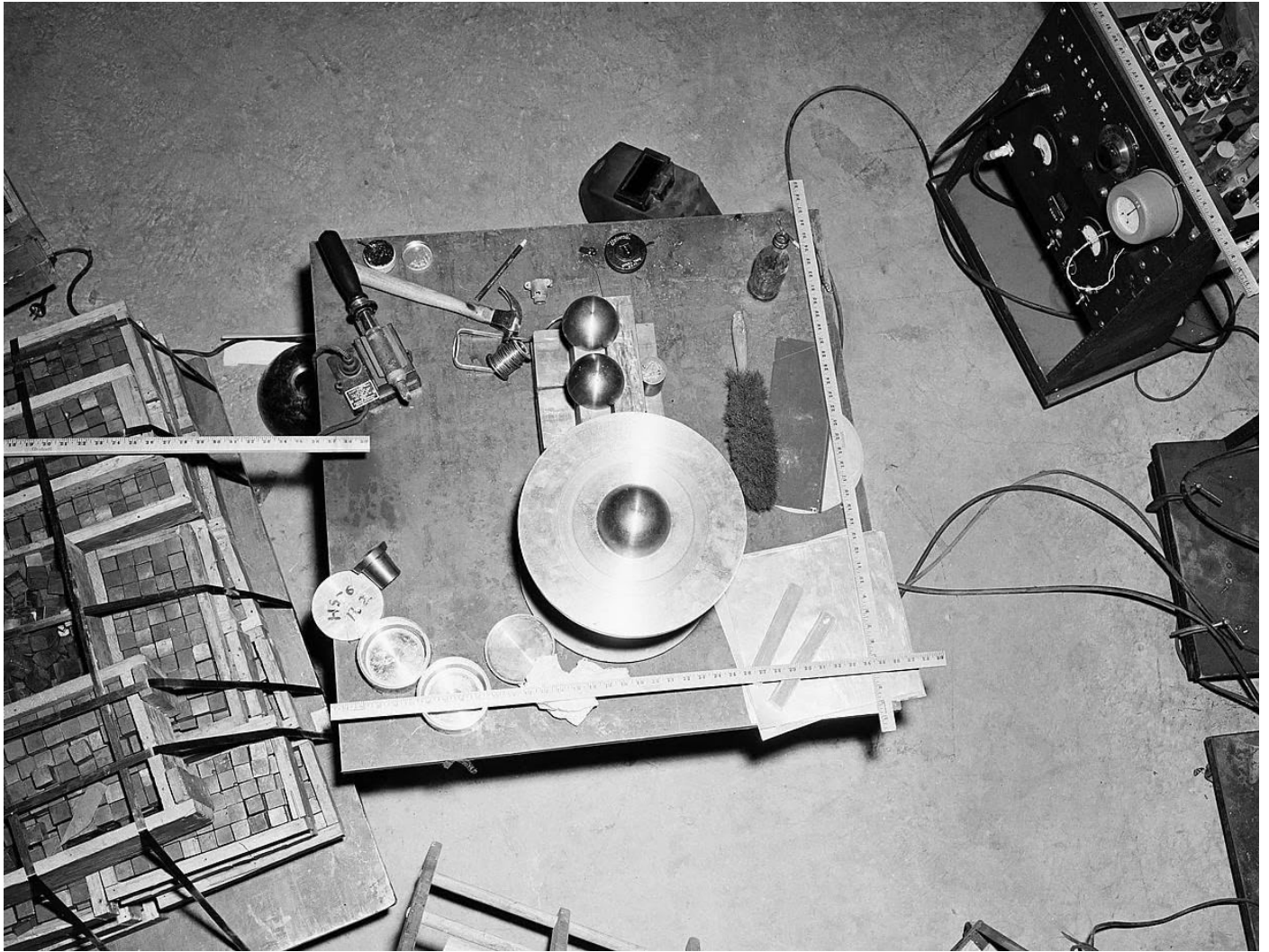
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[http://1.bp.blogspot.com/-HsPyZNV2LQk/UoO_a619aEI/AAAAAAAAAD9o/Pt_4QLgoamQ/s1600/Trinity+weapon+assembly+at+New+Mexico.jpg]



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[UslsLSwWIno/UoO_3hoFoqI/AAAAAAD9w/bmnBMH_ZUiY/s1600/Trinity+plutonium+core.jpg](http://2.bp.blogspot.com/-UslsLSwWIno/UoO_3hoFoqI/AAAAAAD9w/bmnBMH_ZUiY/s1600/Trinity+plutonium+core.jpg)]

Untold Facts

ABOUT THE H-BOMB



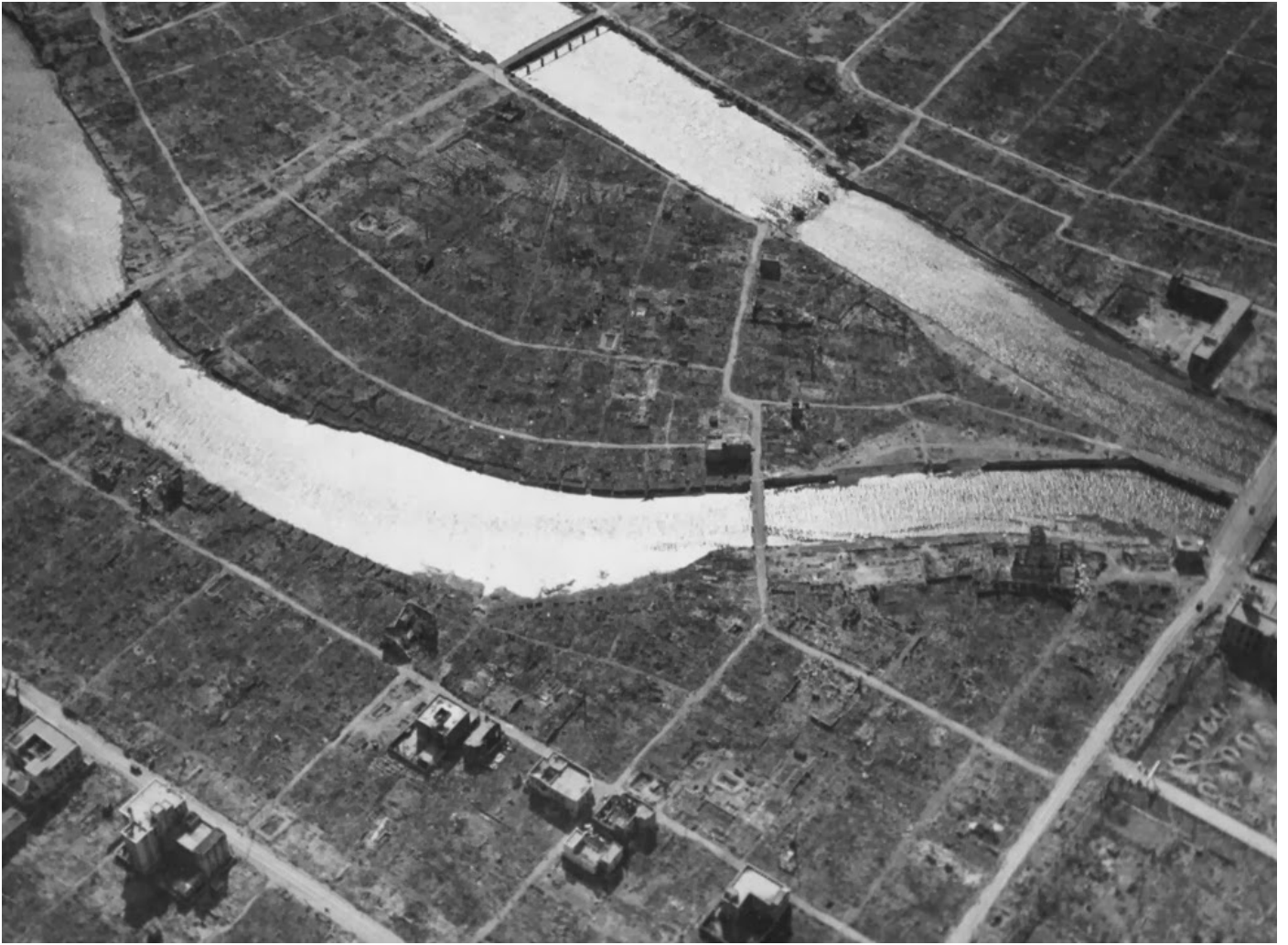
As close as 1,000 ft. from the A-blast center in Hiroshima, these "American-type" buildings were left standing. Razed areas were gutted by fire.



Still less than 1,000 ft. from ground zero, the buildings shown shielded many people from death. Note trees standing, trolley operating as usual.



[<http://4.bp.blogspot.com/-4ECkoxsi7hQ/UoPCcndZZqI/AAAAAAAAAD-E/70m0h8dozdU/s1600/Hiroshima+before+burst.jpg>]



[http://4.bp.blogspot.com/-KA9g717COhQ/UoPCjDyOoMI/AAAAAAAAAD-M/qW0ldoOL_Nw/s1600/Hiroshima+ground+zero+after+burst.jpg]



[<http://1.bp.blogspot.com/-co987-7IA4o/UoPCz9hj4tI/AAAAAAAAAD-U/gsJr42T15bs/s1600/Hiroshima+concrete+buildngs+survive+beside+ground+zero.jpg>]

"The entire Free World, despite its intellectual sophistication, is being held hostage by fear. This fear of the unknown has proliferated for the past 80 years through propaganda, unsound pronouncements of world leaders, and misleading labels compounded by a public press that has neglected its own mandate to seek out and tell the truth." [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>]

[<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] - James W. Hammond, *Poison gas: the myths versus reality*, Preface (Greenwood Press, 1999). [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>]

Conflict resolution or conflict perpetration? The threat to civil defense from the intolerant idealists who caused WWII and prevented proper civil defence in the 1930s [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] (28 October 2013 update)

"It is easy to forget how simple and superficially alluring wallowing in the feeling of injustice or retribution for past hurt can be. The alternative requires the development of a wholly new narrative, the admission that the other side might have a point. So leaders have to speak of the possibility of reconciliation with those for whom history has been about the utter unacceptability of reconciliation. This is real political leadership, and it takes real character to do it." [<http://www.theguardian.com/commentisfree/2013/oct/24/tony-blair-northern-ireland-peace-process>]

[<http://www.theguardian.com/commentisfree/2013/oct/24/tony-blair-northern-ireland-peace-process>]

- Tony

Blair, *Guardian* 24 October 2013 [<http://www.theguardian.com/commentisfree/2013/oct/24/tony-blair-northern-ireland-peace-process>], Foreword to *The Irish Diaries* [http://www.lilliputpress.ie/book/144232556/alastair_campbell_ed_kathy_gilfillan-the_irish_diaries_1994-2003_.html] (1994-2003) by Alastair Campbell, published next week by The Lilliput Press.



[<http://2.bp.blogspot.com/-ayatJXC2jfQ/UnddMussP2I/AAAAAAAAAD6w/jXDTYI-9Jxw/s1600/England+football+team+1938+Nazi+salute+on+orders+of+Conservative+UK+Government+for+appeasement+of+Adolf+Hitler.jpg>]



[[http://3.bp.blogspot.com/-](http://3.bp.blogspot.com/-cHSbYPYug9c/UnddaO1eTNI/AAAAAAAAAD64/j0h0ZoZgQww/s1600/England+football+team+1938+Nazi+salute+on+orders+of+Conservative+UK+Government+for+appeasement+of+Adolf+Hitler+b.jpg)

[cHSbYPYug9c/UnddaO1eTNI/AAAAAAAAAD64/j0h0ZoZgQww/s1600/England+football+team+1938+Nazi+salute+on+orders+of+Conservative+UK+Government+for+appeasement+of+Adolf+Hitler+b.jpg](http://3.bp.blogspot.com/-cHSbYPYug9c/UnddaO1eTNI/AAAAAAAAAD64/j0h0ZoZgQww/s1600/England+football+team+1938+Nazi+salute+on+orders+of+Conservative+UK+Government+for+appeasement+of+Adolf+Hitler+b.jpg)]

"On May 14, 1938, in Berlin's Olympic Stadium, the English football team were blackguarded by the Foreign Office and the Football Association into giving the "Heil Hitler" Nazi salute ... But that picture of impressionable footballers obeying orders from mutton-headed apparatchiks went round the world and became a lasting source of shame to this country. This was, after all, just weeks after Hitler had annexed Austria and came at a time when plans for the Final Solution were well advanced. ... Was Hitler made more reasonable by that salute, or by the willingness of the world to offer him a massive propaganda boost two years earlier at the Berlin Olympics by turning up without a squeak of protest? Of course not, which leads to some interesting parallels with today. ... This idea that to criticise totalitarianism is a breach of the Olympic spirit is as wretched a perversion of logic as even the Nazis ever attempted. ... China is a menace to the civilised world for many other reasons, ranging from its support for renegade regimes such as the government of Sudan, who used Chinese weaponry to commit the Darfur massacres, to its shameless emergence as the number one polluter. ... Over the next 20 years, they will create as much pollution as the rest of the world has since the birth of the industrial revolution. This is a shocking statistic worthy of condemnation anywhere and everywhere. If British athletes feel strongly about that, why shouldn't they speak out?" - David Mellor. [<http://www.dailymail.co.uk/news/article-513358/Shameful-picture-England-squad-giving-Nazi-salute-haunts-British-sport-Why-70-years-later-suck-dictators.html>]

ABOVE: former Cabinet Minister David Mellor writes that the "Shameful picture of England squad giving Nazi salute ... 70 years later, why do we still suck up to dictators?" [<http://www.dailymail.co.uk/news/article-513358/Shameful-picture-England-squad-giving-Nazi-salute-haunts-British-sport-Why-70-years-later-suck-dictators.html>]

Answers abound: Pacifism. Appeasement. Anything is better than everyone on earth being gassed. In the 1930s, the popular journalism claim - as Professor Kendall points out on page 110 of *Breathe Freely* - was that 1 ton of mustard gas "is sufficient to kill 45,000,000 people", despite the fact that during World War I given cheap relatively primitive and easy WWI anti-gas countermeasures, it actually took 8 tons of mustard gas to kill 1 person, as Kendall points out on page 45, which is 1/8 of a death per ton, compared to the theoretical "ideologue" estimate of 45,000,000 deaths per ton. [<https://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n127/mode/2up>] In other words, the war effects exaggerations in the 1930s exaggerated the effects of gas by a factor $(45,000,000)/(1/8) = 360,000,000$. This lying is why pacifism turned evil: ideologues lie because they are wrong and know they are wrong so they are "forced" to lie in order to sell their dysfunctional propaganda to

the media. They home in on anything joe public can't understand clearly just as in olden times evil dictators used witchcraft superstitions as a scapegoat for all ills. Any smokescreen to deflect attention from reality!

A couple of additional points. First, [Chinese pollution effects are exaggerated by Mellor's political ideologues, because all 21 IPCC 2007 models of climate change ignored negative feedback from water cloud cover which is a natural thermostat, preventing a runaway greenhouse effect \(which would definitely have happened long since due to water if water had a purely positive feedback, which the IPCC wrongly assumes\) \[https://archive.org/stream/Watermelons#page/n0/mode/2up\]](https://archive.org/stream/Watermelons#page/n0/mode/2up) . The continued ocean heating effects (like ice melting) while the lower troposphere failed to continue to warm since 1998 is purely down to the massive heat capacity of the ocean and the slow mixing of the warmed upper ocean (above the thermocline) to greater depths. It takes decades for the air to heat up the entire ocean slightly, its a slow process. This slow transfer rate of temperature rises established in the air prior to 1998 is not a continued atmospheric heating effect. It's merely a slow response of the ocean, a time lag effect due to the slow transfer of heat through the depths of the ocean (warm water floats on cool water, which inhibits heat transfer). Second, the Chinese communists are largely funding the West through the debt situation.

America has over \$12 trillion national debt, Britain over £1 trillion. As in Germany during the 1930s, state spending on national socialism and other things (wars for example) is being funded not by taxation, but by national debt. The governments have to be elected, and to do that they must keep taxes low. They must also be popular by spending lots of money on social things like health industries (which nobody objects to), and this huge state socialist spending can't be funded by low taxes, so it must come from the national credit card - debt. The Chinese, bless them, have a different system to old USSR and actually manage to combine communism with capitalism in such a way they can save up loads of money and lend it out (directly or indirectly by investment schemes) to cash-strapped Western countries. The result? We owe a lot of money to communists (either directly or indirectly). Obviously at some point common sense dictates that the interest repayments will result in pressure for reform, particularly if there is another big slump for the West like the 1929 Wall Street crash.

Civil defence comes into this directly, because in 1929 anyone who announced that bankrupt cash-strapped, disarmed, democratic Germany would have turned into a threat to world peace would be laughed out of town.

But contrary to today's popular historians, it wasn't just popular eugenics pseudoscience that lay behind WWII. It was debt. Hitler borrowed his way into war. Massive national socialist state spending to build the autobahn, the V1 cruise missile, the V2 IRBM, full employment, etc., had to be funded from somewhere.

Where did Hitler get all the cash to reverse Germany's fortunes in a few years after the Wall Street crash of 1929 without a return to 1923-type German hyperinflation? The Nazis were bankrolled by debt. This was ignored by pacifists and the popular media at the time. This goes some way to explaining why Hitler and his gang were so keen to use their massive army to keep invading. They had to keep expanding their borders to build up financial security. Their "peace" promises were dud because they would have gone bankrupt - returning to the ruinous 1923 days of hyperinflation - if they didn't keep seizing new territory. This was the hidden debt picture. Like the USSR in the 1980s, Nazism wasn't financially viable and would have gone bust in a real arms race (which simply didn't happen in the 1930s despite Chamberlain's contrived lies to the contrary later). This is why **financially stable** democracies are needed to prevent war, not appeasement or weapons effects exaggerations or lying "peace treaties" which were not worth the paper they were written on. Weart's 1998 book *Never at War* shows that to have world peace, we need **financially stable democracies** not lying peace treaties, not lying disarmament brainwashing, not exaggerated weapons effects delusions, not a ban on civil defence or survival in disasters. ([See page 33 of my review of Watermelons, linked here \[https://archive.org/stream/Watermelons#page/n31/mode/2up\]](https://archive.org/stream/Watermelons#page/n31/mode/2up) .) These rude, ignorant, "angry" abusive and insulting ideologue morons's lies have cost millions of human lives. It's time that CND liars were confronted with the undeniable truth. [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>]

Above: listening, compromising and expressing empathy is all well and good for the trivial conflict resolution of storms in teacups (*Everybody Loves Raymond* comedy episode *Father Knows Least*, starting clip at 1103 seconds), showing a Blair-like peacemaker faced with an easy and a difficult conflict, leading inevitably to predictably different results). *Talking fails, however, for the real challenges where actions speak louder than words. The enemy of preparedness against nuclear disaster is intolerant idealism which tries to use simplistic, appeasing techniques to peacefully resolve great, deep chasms, before warfare has reduced aggression levels and made reconciliation credible and achievable. As long ago as 1929, Churchill warned: "No folly is more costly than the folly of intolerant idealism."* [<https://archive.org/stream/Watermelons#page/n17/mode/2up>] As Weart explained in his 1998 book *Never at War*, the road to peace is the transformation of dictatorships and communist regimes into financially stable democracies (not intolerant idealist or socialist basket cases like today's bankrupt Spain and Greece), see the quotation from Weart which is linked here [<https://archive.org/stream/Watermelons#page/n31/mode/2up>] .

The problem with Tony Blair's sweeping argument (quoted above) is that he assumes that the leadership is in a position to negotiate, and is willing to negotiate. What happens in most dictatorships is that as soon as the dictator at the top "goes soft", there's a revolution and he's replaced by a hard-liner who can "maintain order and discipline". In the worst cases, like Hitler's and Stalin's national socialism, the massive state spending sprees created a debt crisis that in part motivated the aggressive impulses of evil empires, a fact ignored by democracies who listened instead to people like Nobel Peace Prize winner Sir Norman Angell, whose book *The Great Illusion* claimed that the financial costs of war made war a great illusion, a prize-winning argument which totally ignored "peaceful genocide," concentration camp eugenics, slavery, and the non-quantifiable value of individual freedom from state control. In other words, Angell's theorem was the opposite to reality: financial debt problems motivated Hitler's aggression, rather than fear of war debt showing war to be a great illusion. Similarly, Prime Minister Chamberlain used fears of the financial cost of a preventative war to stop German rearmament as an excuse for appeasement and for not investing enough in an arms race and in civil defence to counter the effects of enemy action (like all politicians, he was after a Nobel Peace Prize and eternal glory). Thus, fears of debt motivated the very policies that led to war, instead of preventing the war.

Northern Ireland's peace agreement in 1998 was a special case because the majority of the people (ignoring a few extremists) on both sides by then (after decades of violence) felt that violence wasn't getting anywhere, *because violence had run its course and BOTH SIDES (not just one side) were prepared to negotiate meaningfully and reach an agreement involving compromise.*

Could the peace agreement have been reached earlier, without generations of violence leading to weariness of violence? No more than Japan's early surrender could have been *secured* without Hiroshima and Nagasaki, or the disintegration of the USSR without its bankruptcy in the arms race. In all these cases, peace talks and arms agreements were desperately attempted, yet went nowhere until the stakes were raised high by violence, war (or cold war) weariness, or the threat of violence. *Action had to speak louder than words before* before a negotiated change to a more peaceful direction.

As Herman Kahn points out in his 1960 classic *On Thermonuclear War*, the problem is not even a *direct* "threat" of war or a *direct threat* of "violence". Germany never *directly* threatened to attack Britain or to "start" a war with Britain, either in 1914 (when Britain's Foreign Secretary Edward Grey minced his language and procrastinated from decisive warnings so badly that the Kaiser believe that Britain wouldn't declare war if Germany *invaded Belgium*) or in 1939 (when Chamberlain similarly misled Hitler by repeatedly backing away from confrontation as Germany rearmed and broke treaty after treaty, invading successive countries, until war was finally precipitated not by a direct threat to Britain but by Germany's invasion of Poland, with which Britain had made a military support agreement in a plan that was supposed to be "war preventing" but of course did the opposite, like all such idealistic agreements).

Like Grey's appeasement of the Kaiser in 1914, Hitler in 1939 was repeatedly told by Chamberlain that Britain had no stomach for war, and was obsessed with peace. In a sense, appeasement action conned the Nazis into believing they would be allowed to do what they like. Thus, as Kahn points out, we need not to merely deter or counter direct threats, but we need to be ready for the kinds of indirect threats that we have seen in history. The world has not "moved on" from the basic key problems of the 1930s.

Violence, the threat of violence or a weariness of war or cold war, is always needed to bring about a sincere desire for peace; "exceptions" to this rule are always the **trivial** "conflict cases" where there is no serious conflict of interests to begin with and the "conflict" is just a contrived effort to get talks started (sure, conflict resolution talk and agreement can resolve low-level or exhausted crises which are - or have degenerated into - "storms in teacups"). The fashionable pacifist dogma asserts the opposite, claiming that peace-talk is an alternative to fighting or a replacement for fighting, using the "foot in the door" sales technique. First, they take an example of a low-level conflict or one which is contrived in an effort to force negotiation, and is easily resolved; then this "example" is false extended into the general case of all arguments, including those like the 1930s where all attempts at conflict resolution made things worse by allowing the enemy to rearm faster than democracies and to extend its lead (the gap in the arms race which led to a full scale world war, with tens of millions dead). Human nature is such that peace-talk by Grey in 1914 and Baldwin and Chamberlain in the 1930s encouraged aggressors, by inviting coercion and by displaying fear and weakness to terrorists.

There is a difference between "reconciliation" and "appeasement", and the difference is this: reconciliation is what happens *after* a violent fight, whereas appeasement is what happens *before* one.



British Prime Minister Neville Chamberlain in Munich - 1938

Hugo Jaeger / LIFE
LIFE, p. 144

Proposed to receive the Nobel Peace Prize for his work
(but events would soon prove his work to have been hollow)

We, the German Führer and Chancellor and the British Prime Minister, have had a further meeting today and are agreed in recognising that the question of Anglo-German relations is of the first importance for the two countries and for Europe.

We regard the agreement signed last night and the Anglo-German Naval Agreement as symbolic of the desire of our two peoples never to go to war with one another again.

We are resolved that the method of consultation shall be the method adopted to deal with any other questions that may concern our two countries, and we are determined to continue our efforts to remove possible sources of difference and thus to contribute to assure the peace of Europe.

Neville Chamberlain

September 30, 1938.

[http://3.bp.blogspot.com/-OllwWE7bRw/Um6mmE-0pJI/AAAAAAAD10/HJ5vY_RwS30/s1600/Appeasement+with+a+smiling+face.JPG]

Peace Pledged by Hitler and Chamberlain

LONDON, Sept. 30. (U.P.)—

Prime Minister Chamberlain tonight delivered to his people the Munich agreement for dismemberment of Czechoslovakia and his sealed and solemn pledge with Adolf Hitler that Great Britain and Germany "never will go to war with one another again."

The Anglo-German pact of peace, described by Chamberlain as the prelude to a lasting settlement "in which all of Europe may find peace," came like a bombshell.

CROWDS HYSTERICAL

It heightened the hysteria of crowds rejoicing in the streets over the eleventh-hour success of Europe's four major powers—Britain, France, Germany and Italy—in averting war because of the German-Czech crisis.

Scenes in the streets were reminiscent of the November night in 1918 when word came of the Armistice. Chamberlain was hailed as a "liberator."

The capitulation of the Czechs to the Munich agreement earlier today paved the way for the dictators and the democracies to set out on a far-reaching effort to wipe out Europe's trouble spots and eliminate the periodic menaces of war.

ONLY PRELUDE

"I want to say that settlement of the Czechoslovak problem now achieved is, in my view, only the prelude to a larger settlement in which all of Europe may find peace," Chamberlain told a huge crowd on hand to greet him when he stepped from his special plane at Heston airdrome late today.

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Neville Chamberlain

September 30, 1938.



Germany violated the Versailles Treaty, and Germany, Italy, and Japan defied the League of Nations by the following acts of aggression: Italy conquered (1) Ethiopia, 1935; and occupied (2) Albania, 1939. Germany seized (3) the Rhineland, 1936; (4) Austria, 1938; (5) the Sudetenland, 1938; (6) the rest of Czechoslovakia, 1939; (7) Memel and Danzig, 1939; and (8) Poland, 1939. Japan invaded (9) Manchukuo, 1931; (10) the Eastern Provinces, 1939; and (11) Hainan and Chinese Ports, 1939.



[[http://4.bp.blogspot.com/-NN46-](http://4.bp.blogspot.com/-NN46-Bdv9Kw/Um6mbQ7A1g/AAAAAAAAAD1s/hTTMnDGXVOs/s1600/Munich+agreement+between+Britain+and+Germany+in+1938+to+avert+WWII.JPG)

[Bdv9Kw/Um6mbQ7A1g/AAAAAAAAAD1s/hTTMnDGXVOs/s1600/Munich+agreement+between+Britain+and+Germany+in+1938+to+avert+WWII.JPG](http://4.bp.blogspot.com/-NN46-Bdv9Kw/Um6mbQ7A1g/AAAAAAAAAD1s/hTTMnDGXVOs/s1600/Munich+agreement+between+Britain+and+Germany+in+1938+to+avert+WWII.JPG)]

Above: at 11.15 a.m. on 3 September 1939, Britain's Prime Minister Neville Chamberlain broadcast the admission: [<http://www.bbc.co.uk/archive/w2/outbreak/7957.shtml?page=txt>] "This morning the British Ambassador in Berlin handed the German Government a final Note stating that, unless we heard from them by 11 o'clock that they were prepared at once to withdraw their troops from Poland, a state of war would

exist between us. I have to tell you now that no such undertaking has been received, and that consequently this country is at war with Germany. You can imagine what a bitter blow it is to me that all my long struggle to win peace has failed. Yet I cannot believe that there is anything more or anything different that I could have done [for the Nazis, he means; there was a hell of a lot more he could have done to effectively deter horrors for the Jews, for civil defence shelter research funding, and for a real arms race that would exceed Nazi spending and deter Nazi invasions until Germany went bankrupt, like Churchill called for in the early 30s, and Reagan did in the 80s with the USSR] that would have been more successful [where "success" is judged by the criterion of achieving a Nobel Peace Prize, not success as judged by more objective criteria, e.g. stopping what is today called "ethnic cleansing" by appeasers of terrorism]. Up to the very last it would have been quite possible to have arranged a peaceful and honourable settlement between Germany and Poland, but Hitler would not have it. He had evidently made up his mind to attack Poland whatever happened, and although He now says he put forward reasonable proposals which were rejected by the Poles, that is not a true statement. The proposals were never shown to the Poles, nor to us, and, although they were announced in a German broadcast on Thursday night, Hitler did not wait to hear comments on them, but ordered his troops to cross the Polish frontier. **His action shows convincingly that there is no chance of expecting that this man will ever give up his practice of using force to gain his will. He can only be stopped by force.**"

The threat of force is why we need war capabilities that go beyond mindless yammering, and why we need civil defense to take the edge off terrorist intimidation and coercive indirect or direct threats. Chemical disarmament pledges and treaties like the 1925 Geneva Protocol did not prevent millions of defenseless people being gassed to death at concentration camps in WWII. Bits of paper and unarmed policemen do not deter thugs today, didn't deter thugs in the past, and certainly won't deter thugs in the future.

Update (30 October 2013): [<http://blogs.telegraph.co.uk/news/concoughlin/100242509/there-wont-be-peace-in-syria-so-long-as-britain-is-backing-the-rebels/>]

Over a month before the Damascus sarin nerve gas attack that killed 1,300 civilians, Foreign Secretary William Hague on 16 July 2013, British Foreign Secretary issued a written statement to Parliament which stated: "There is evidence of attacks using chemical weapons in Syria - including sarin. We believe that the use of chemical weapons is sanctioned and ordered by the Assad regime. ... We plan to equip the moderate armed opposition with 5000 escape hoods, nerve-agent pre-treatment tablets (NAPs) and chemical weapons detector paper."

What he could have done was to have prepared civilian kids using civil defence. Sarin is liquid droplets which at typical ambient temperatures take 3 times longer to evaporate than water droplets of similar size. Britain's Porton Down in the 1970s proved how to keep sarin droplets and their vapour out of houses with blast-broken windows, using a simple, DIRT-CHEAP, duct-tape-and-plastic-sheeting method which was proof-tested against simulated nerve and blister gas liquid contaminants! The actual method is very simple and was first tested and employed in 1917 by America in gas-proofed trenches. (Page 14 of the Confidential-classified American manual of 1917, "Defensive Measures Against Gas Attacks", states: "The value of gas-proof dugouts and cellars has been clearly demonstrated. This should be borne in mind in view of the inflammation of the skin produced by mustard gas.") In 1937, the government published a 7-page printed report on experiments to determine the effectiveness of anti-gas protection of houses and of people wearing gas masks or not wearing gas masks in sealed rooms. (I've put it on the Internet Archive at: <http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n141/mode/2up> [<http://archive.org/stream/AirRaidsWhatYouMustKnowWhatYouMustDo/AirRaidsHandbook#page/n141/mode/2up>] together with some of the updated research proving that nerve liquids can be kept out the same way, while it evaporates, plus declassified effective civil defence evidence for other weapons than can be used in war.) This Experiments in Anti-Gas Protection of Houses ARP report was published by the Home Office Air Raid Precautions (ARP) Department to disprove fears circulated by various critics in 1937 (especially the Cambridge Scientists' Anti-War Group which published a book claiming to entirely discredit all air raid precautions), that the gas masks and gas proof rooms did not work, were unreliable, or were just armchair advice invented to support anti-Nazi warmongering rather than appeasement policies:

"The experiments were conducted by the Chemical Defence Research Department under the aegis of a special Sub-Committee of the Chemical Defence Committee. That Sub-Committee was composed of eminent experts not in Government employment, and included a number of distinguished University professors and scientists."

This report first summarises the protective anti-gas advice published in ARP Handbook 1 in 1937, and then gives the results of experimental tests at Porton Down, using a draughty game-keeper's cottage with windows shut:

"... over a ton of chlorine gas was released 20 yards from the house so that the wind carried it straight on to the unprotected room. ... Human beings who occupied this unprotected room found that gas penetrated slowly into the room, and after about seven minutes it became necessary for them to put on their respirators. ... In another experiment the house was surrounded at a distance of 20 yards by large shallow trays which were filled with mustard gas ... Animals were placed in an unprotected room ... Observations made upon the animals ... showed that none of them were seriously harmed by the mustard gas. The third type of gas used was tear gas ... after 3/4 of an hour the strength of the gas inside the house was still very much less than that outside."

The report then goes over the same experiments done on a protected room with door and window frames sealed up and shows:

"The animals in the 'gas protected' room, however, were unaffected and remained normal, notwithstanding

the severity of the trial."

In no case could toxic concentrations of a gas penetrate into a sealed up room before the gas outside had been blown away or evaporated by the weather.

"The entire Free World, despite its intellectual sophistication, is being held hostage by fear. This fear of the unknown has proliferated for the past 80 years through propaganda, unsound pronouncements of world leaders, and misleading labels compounded by a public press that has neglected its own mandate to seek out and tell the truth."

- James W. Hammond, Poison gas: the myths versus reality, Preface (Greenwood Press, 1999).

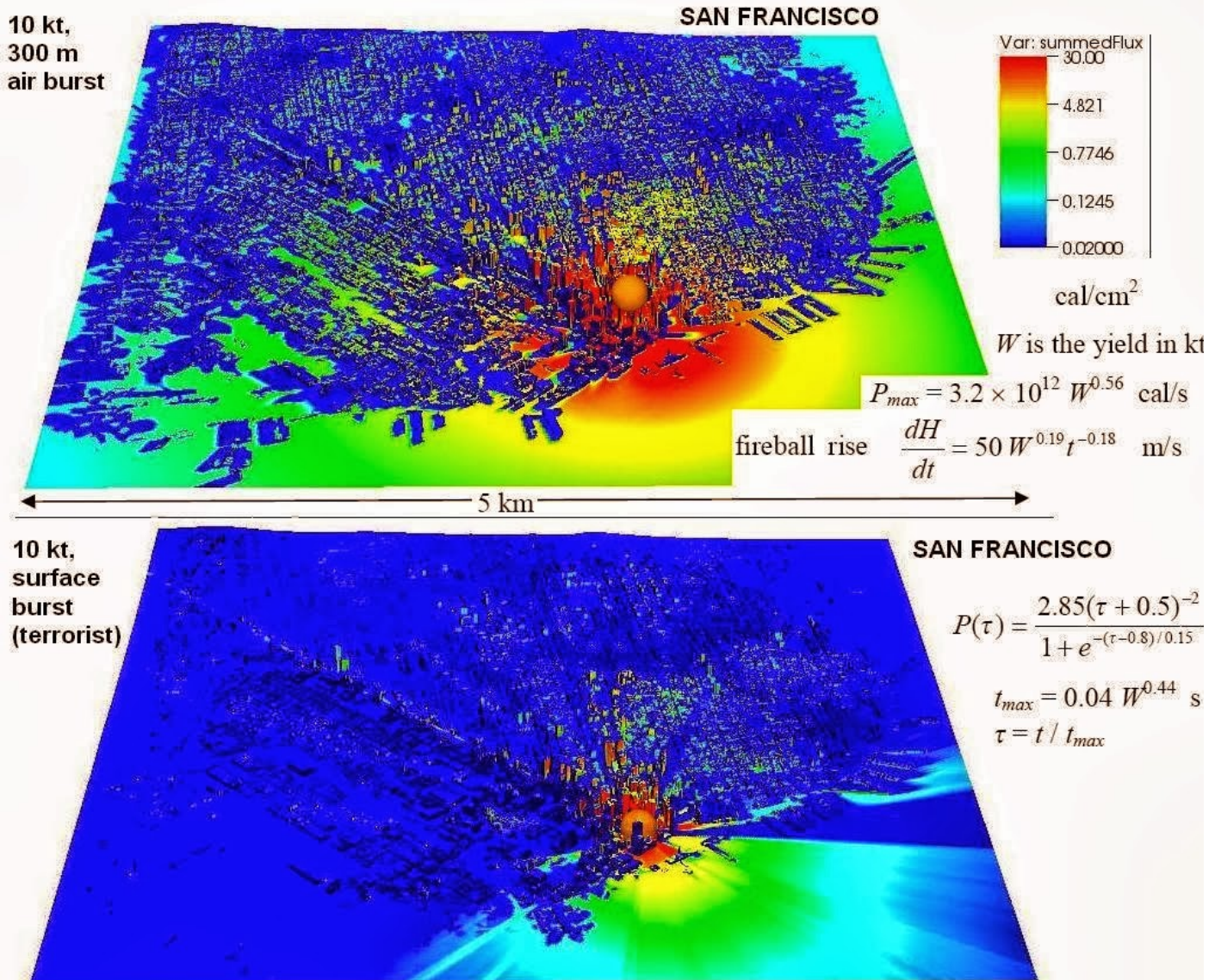
Trust the (un)United Nations to push ahead with "banning" the most easily produced and cheaply protected against weapons, while ignoring and permitting the harder-to-protect-against weapons like snipers bullets (requiring helmets and flak jackets at least) or high explosives (involving shelter from blast and fragments). As the Japanese Aum Shinrikyo cult which used sarin in 1995 proved beyond any doubt or denial, Chemical disarmament pledges and treaties like the 1925 Geneva Protocol did not prevent millions of defenseless people being gassed to death at concentration camps in WWII. Bits of paper and unarmed policemen do not deter thugs today, didn't deter thugs in the past, and certainly won't deter thugs in the future.

Thermal Radiation from Nuclear Detonations in Urban Environments

R. E. Marrs, W. C. Moss, and B. Whitlock
Lawrence Livermore National Laboratory

UCRL-TR-231593

June 7, 2007



Even without shadowing, the location of most of the urban population within buildings causes a substantial reduction in casualties compared to the unshielded estimates. Other investigators have estimated that the reduction in burn injuries may be greater than 90% due to shadowing and the indoor location of most of the population [6].

We have shown that common estimates of weapon effects that calculate a "radius" for thermal radiation are clearly misleading for surface bursts in urban environments. In many cases only a few unshadowed vertical surfaces, a small fraction of the area within a thermal damage radius, receive the expected heat flux.

[<http://3.bp.blogspot.com/-lFYr-jNhPU0/UnFGd-sqX7I/AAAAAAAAAD5k/VYr6Zmn8fSM/s1600/thermal+effects.JPG>]

ABOVE: The blast, heat and radiation are easily shielded by modern concrete jungles, and thus all the effects are highly survivable with simple proof-tested "duck and cover", contrary to terrorism-supporting propaganda.



Specially drawn for H.M. Government by Illingworth

The basic minimum of information for every responsible man and woman



- 1** The H-Bomb: we hear too much of the horrors, not enough about our chances of survival. Some people will tell you that if this country were attacked with H-Bombs, every man jack of the population would be wiped out. *That just isn't true: it isn't anything LIKE the truth.*
- 2** Civil Defence is well on with the job already.

Do you know how to put out a fire? Do you know how to operate a radio transmitter? These are two more of the useful, interesting things that Civil Defence could teach you, now.

Do you remember the East Coast floods, the Lynmouth disaster, the Harrow rail smash? These are three of the emergencies where trained volunteers from Civil Defence were ready and able to help. They were needed.

CIVIL DEFENCE is common sense

ISSUED FOR H.M. GOVERNMENT BY THE CENTRAL OFFICE OF INFORMATION

Civil Defence
National Press Sept. 1957
C.B.P. 555 25 x 11
Printed Press 7-4-57 L10605

[http://4.bp.blogspot.com/-l0xBW_EBd4I/UnldUJBC2a/AAAAAAAAAD6I/eR6x_4PU3eo/s1600/civil+defence+UK+1957+facts.JPG]

6 November 2013: The "population bomb" eugenics liars supported by the compulsory licence funded BBC
[<https://archive.org/stream/Watermelons#page/n11/mode/2up>]

[<https://archive.org/stream/Watermelons#page/n11/mode/2up>] While we're rooting out eugenicists, like Stalin's corrupt communists who murdered 40 million in collectivization in the 1930s (far more than Hitler's 6 million which is more widely hyped by the left than Stalin's "success"), and the evil Medical Nobel Laureate and gas chamber eugenics fascist Dr Alexis Carrell, [<https://archive.org/stream/Watermelons#page/n11/mode/2up>] let's look at an article written recently by Fredrick Forsyth about propaganda from a BBC ideologue and why it's totally false:

"IT IS CORRUPTION, NOT OVER-POPULATION, THAT IS STARVING THE WORLD'S POOR

"Sir David Attenborough tells us that mankind's real problem is over-population, leading to starvation ... nonsense. ... the people of Singapore ... Taiwan, Hong Kong and South Korea ... Japanese ... all are among the wealthiest and best fed in the world. The

starving are not those who lack land ... If Sir David's equation was right, we British would eat less well than the folk of Mali because their land is bigger. [Across much of East Africa and other impoverished "overpopulated" starving and disease ridden areas] beneath even arid land there are aquifers ... Yet the people ... are desperately poor and thus hungry and, from drinking filthy water, diseased. ... In just about every impoverished country on earth there is one scourge worse than malaria, dysentery, or even hunger: corruption. ... The wells are never dug ... There is no end to the appetite of the corrupt." - Frederick Forsyth, Daily Express, Friday 27 September 2013, page 15.

As we show in Figure 12 of our review of Delingpole's book *Watermelons* (the relevant page of our review is linked here) [\[https://archive.org/stream/Watermelons#page/n23/mode/2up\]](https://archive.org/stream/Watermelons#page/n23/mode/2up) , Sir David Attenborough is ignorant, arrogant, and plain wrong in repeating the Malthus lie: under capitalism a growing world population *increases the food supply* [\[https://archive.org/stream/Watermelons#page/n23/mode/2up\]](https://archive.org/stream/Watermelons#page/n23/mode/2up) *per person, because food production increases faster than population due to factors called "science" and "technology" which Malthus didn't have a clue about.* [\[https://archive.org/stream/Watermelons#page/n23/mode/2up\]](https://archive.org/stream/Watermelons#page/n23/mode/2up) What's Attenborough's excuse? Ignorance? Stupidity? Propaganda? Saving the world by killing it? The ends justify the means? Whatever, it's just the pathetic lies used to defend pseudosciences, from epicycles to eugenics to shooting people climbing the Berlin Wall. What's interesting in addition is that the very corruption that diverts charity from wiping out starvation and disease in the world is mirrored in the West by compulsory funded (USSR media type) BBC and (loss making) Guardian newspaper propaganda lies in the name of "peace". According to Jesus, it's best to remove the plank from your own eye before attending to the splinter in somebody else's. So maybe it is wisest that we root out, expose, and discredit popular corrupt propaganda liars in the West, before we can hold the moral high ground to wipe out corruption elsewhere. (Marxism and eugenics propaganda are products of Western culture. No surprise, really.)

From the BBC's Useful Idiots program:
[\[http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml\]](http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml)
http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml
[\[http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml\]](http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml)

"In 1952 Doris Lessing, a British writer who has since won the Nobel Prize for Literature, was part of a delegation visiting the Soviet Union. Her memories of the trip are clear and unforgiving: "I was taken around and shown things as a 'useful idiot'... that's what my role was." ... Irish playwright George Bernard Shaw and American journalist Walter Duranty were some of those people who also visited the Soviet Union. However as stories mounted of mass murder and starvation in parts of Russia and the Ukraine, reporters such as Gareth Jones and Malcolm Muggeridge investigated and reported on 'the creation of one enormous Belsen'. Duranty responded with an article in the New York Times headed 'Story of the famine is bunk', and got an exclusive interview with Stalin. Soon after, Jones died and Muggeridge's career nose-dived. Duranty was awarded a Pulitzer."
[\[http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml\]](http://www.bbc.co.uk/worldservice/documentaries/2010/07/100624_doc_useful_idiots_lenin.shtml)

The point is, as with Duranty, when there are two sides to any story, the BBC and Guardian newspaper unfailingly manage to swallow the liars propaganda (hook, line and sinker), thus taking the wrong side. The simple answer is that these pseudo-intellectuals find fiction more appealing than facts. They prefer utopian hopeful fantasies to tough reality. They are ideologues who want to believe in contrived propaganda that reinforces their ideals.

UPDATE (10 Nov. 2013): [\[http://blogs.spectator.co.uk/coffeehouse/2013/11/hans-rosling-dont-panic-theres-no-population-bomb/\]](http://blogs.spectator.co.uk/coffeehouse/2013/11/hans-rosling-dont-panic-theres-no-population-bomb/)

[\[http://blogs.spectator.co.uk/coffeehouse/2013/11/hans-rosling-dont-panic-theres-no-population-bomb/\]](http://blogs.spectator.co.uk/coffeehouse/2013/11/hans-rosling-dont-panic-theres-no-population-bomb/)
Professor Hans Rosling has an article in the 6 Nov. 2013 *Spectator*, stating [\[http://blogs.spectator.co.uk/coffeehouse/2013/11/hans-rosling-dont-panic-theres-no-population-bomb/\]](http://blogs.spectator.co.uk/coffeehouse/2013/11/hans-rosling-dont-panic-theres-no-population-bomb/) :

Don't panic! There's no population bomb

Hans Rosling [<http://blogs.spectator.co.uk/author/hansrosling/>] 6 November 2013 17:32

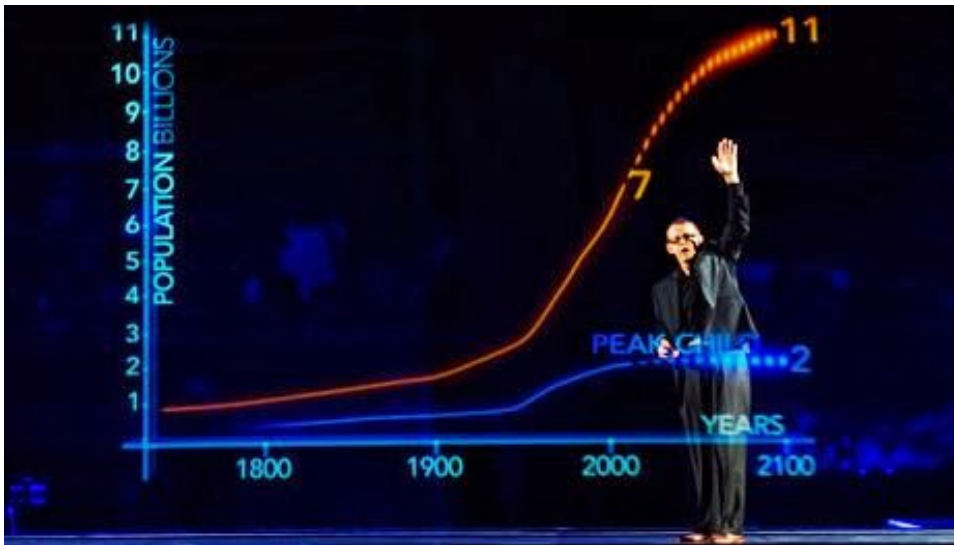
Our planet is now home to seven billion people, with ravenous appetites for fuel and food — and the number keeps growing. ... Yet paradoxically, the number of children in the world is not going to rise from now on. Let me first bust a few myths. How many babies do Bangladeshi women have on average ... by now it's actually 2.2 ... This is what Brits don't know: that in Bangladesh — and also in Brazil, Vietnam, India and big African cities like Addis Ababa — two-child families are the norm. ... It's unprecedented in human history. It also means that we'll see the end of fast population growth by the end of this century. ... Here's the thing. Around 2000 we reached the period of 'peak child' — from then on, the number of people under the age of 15 stayed at about two billion of the global population ...

The population growth since 1800 was due to a much longed-for drop in child mortality. A wonderful thing occurred, which is that medical advances meant fewer people died in childhood, while humans in general could expect to live longer. In 1972, the year of Bangladesh's independence, there was on average seven babies per woman, and the lifespan was less than 50 years. Today, the average Bangladeshi family has 2.2 children, while life expectancy is 70. ...

This pattern is occurring everywhere — especially in countries like China and India, which people normally think of as contributing most to the population 'explosion'. Fifty years ago, the global average number of babies born per woman was five; today it's 2.5 and decreasing. People think that countries like Bangladesh are the epicentre of a population bomb but they couldn't be more wrong. ... By 2050, Asia will have one billion more people — then its population growth is over. During this time, Africa's population will double to two billion, and is set to double again to four billion by 2100. By the end of the century, with no more population growth in Europe, the Americas and Asia, there will be 11 billion people on earth, with four billion of that in Africa. ...

Here's another question we posed to British people: what's the literacy rate of the world — 20, 40, 60 or 80 percent? Half chose 20 and 40 percent, nearly 45 percent of them chose 60 percent, and only 8 percent picked 80 percent. The answer, of course, is 80 percent (and rising). Four-fifths of the world can read and write, and thus hold the means to pull themselves out of poverty. You see? Our perception of things is very different from the reality.

I am not an optimist, but I do call myself a possibilist. And I say the world is much better than many think.



[[http://1.bp.blogspot.com/-](http://1.bp.blogspot.com/-SPiEASaFTAM/UoAEbJS1iYI/AAAAAAAAAD78/CnLVlSkSwRk/s1600/Hans+Rosling+peak+child+occurred+in+2000.jpg)

[SPiEASaFTAM/UoAEbJS1iYI/AAAAAAAAAD78/CnLVlSkSwRk/s1600/Hans+Rosling+peak+child+occurred+in+2000.jpg](http://1.bp.blogspot.com/-SPiEASaFTAM/UoAEbJS1iYI/AAAAAAAAAD78/CnLVlSkSwRk/s1600/Hans+Rosling+peak+child+occurred+in+2000.jpg)]

Prof. Hans Rosling's graph of population: *the number of kids (under 15 years old) on this planet peaked at 2 billion in 2000 and has not risen since then, because the population growth was just due to medical advances that increased childhood survival and lifespan. The continued increase in total population is due to a temporary lack of sync between births and deaths, due to increasing lifespan. By about 2100 (provided that nobody produces a cheap effective cure for cancer, heart disease, etc.) the total population will stabilize at 11 billion (less than twice today's 7 billion). Most of the increase will be Africa, where technology has time (87 years) to politically reintroduce DDT to kill off the malarial mosquitoes and make capitalist civilization succeed and provide a high standard of living. (The eco-eugenicists would prefer to wipe out the "excess humans" by reintroducing lions or other pests, therefore they tend to either "slow handclap" or scream to drown out the voice of anybody who tells the unfashionable truth.)*

13 November 2013 update: the Cold War, Communist marine sharp shooter Lee Oswald, and conspiracy-based denials of a simple explanation to the Kennedy assassination

PRESIDENT KENNEDY ASSASSINATED

President Kennedy was assassinated yesterday in Dallas, Texas. Three shots were fired as the President's open car passed near an intersection in the main business area of the city. He was hit in the head and died in hospital soon afterwards. Mrs. Kennedy was unhurt, but Mr. John Connally, the Governor of Texas, who was riding with the President, was hit and gravely wounded.

RIFLE NEAR WINDOW

From Our Own Correspondent
WASHINGTON, Nov. 22

The assassination took place as the presidential party drove from the airport into the city of Dallas. One witness said the shots were fired from the window of a building. People flung themselves to the ground as armed policemen and Secret Service agents rushed into the building. A rifle with telescopic sights was found there.

The President was wounded in the head and collapsed into the arms of his wife. She was heard to cry, "Oh, no" as she cradled his head in her lap and the car, spattered with blood, speeded to Parkland Hospital.

The President was still alive when he reached the hospital. He was taken into an emergency room where facilities were said to be adequate.



A policeman with rifle believed to be the assassination weapon.

WITNESS'S STORY

DALLAS, Nov. 22.—Mr. Bob Jackson, a photographer for the *Dallas Times Herald*, saw the shooting and even saw the rifle used from the window. He was riding in the convoy close behind the President's car with four other people.

"When we heard the first shot," he said, "the President had already turned the corner. We had not made the corner yet. Then we heard two more shots. As far as I know, three shots were all I heard."

"Since I was facing the building where the shots were coming from, I just glanced up and saw two coloured men in a window straining to look at a window up above them. As I looked up to the window above, I saw a rifle being pulled back in the window. It might have been resting on the windowsill. I didn't see a man. I didn't even see if it had a scope [telescopic sight] on it."



An arrow points to the window in the building in Dallas from which it is believed the assassin's shot was fired.

[<http://3.bp.blogspot.com/-sV-0zTG0->

[HM/Up4CkYJTKI/AAAAAAAAEG8/3tn1XpcOrpE/s1600/Kennedy+assassinated+by+communist.JPG\]](http://3.bp.blogspot.com/-sV-0zTG0-HM/Up4CkYJTKI/AAAAAAAAEG8/3tn1XpcOrpE/s1600/Kennedy+assassinated+by+communist.JPG)

ABOVE: on 22 November 2013, there will be another round of conspiracy theories, since it will be 50 years after the Kennedy assassination by ex-marine, the Communist Lee Oswald, who ran a "Hands off Cuba" protest campaign against Kennedy after returning from a trip to Russia. Instead of focusing on these actual facts, conspiracy theorists "set aside" the Oswald facts in the same way that Marxist teachers "set aside" the USSR evil empire evidence. The latest 2013 conspiracy theory is that Oswald fired only two shots and the third spent

bullet casing (found by his gun) is claimed to be just an empty casing kept loaded in the gun to keep dust out from the breech. This new conspiracy theory by Australian police detective Colin McLaren asserts that a Secret Service agent (George Hickey, who died in 2005) accidentally shot Kennedy using a AR-15 from the car behind the President's, as his car accelerated after the first two shots. (Hickey in 1995 had sued a previous conspiracy theorist, author Bonar Menninger.) What is the probability that a bullet fired by accident by Hickey happens to hit Kennedy's head? Even if it is true, Communist Oswald doesn't disappear. (He shoots at Kennedy twice, triggering a fatal accident.)

The film and injuries show the directions of bullets that proved important (if bullets were fired by others, they missed). [Newton's 3rd law of motion predicts correctly the so-called "unexplained" backward motion of a head hit with a bullet: the shock wave pressure of a bullet in cerebral fluid material causes material to be ejected from the large exit hole \(front of head\), thus the head recoils backwards, in the opposite direction to this material \(as predicted by Newton's 3rd law of motion: action and reaction are equal and opposite\).](#) There is no mystery unless you ignore this key, well proved law of physics! [<http://www.youtube.com/watch?v=XMV0Fmk2oe4>]

Just as with witchcraft, 10/11 dimensional superstring/supergravity, CO2 induced runaway climate change, gas bombs, nuclear radiation effects, and the effects of nuclear weapons, the popular media "sets aside" the laws of physics, empirical evidence and mechanisms involved; which clears the canvas of reality so that they can have a field day inventing nonsense/conspiracy theories, and blaming anyone but the fact-proved culprit (a crazy, dangerous, deluded Communist). [Irrational, fact-denying groupthink is "defended" by censorship, as Irving L. Janis pointed out on page 206 of his 1972 book *Victims of Groupthink*, censorship of facts is vital for irrational cults. This censorship, Janis explained on page 198, is performed by: "members who protect the group from adverse information ..."](#) [<http://nige.wordpress.com/2013/10/09/higgs-censorshipdictatorshipfashionconsensus-non-science-dogma-of-125-gev-wean-and-electromagnetic-decaying-spin-0-bosons/>]

Al Gore's film *An Inconvenient Truth* is an example: in testimony to congress, Gore simply avoided all evidence against his dogma by making the claim that any evidence against runaway CO2 induced climate change is analogous to "conspiracy theories about the moon landings". Yet the moon landings "critics" don't know any physics: that rocket engines don't produce sound waves in the vacuum on the moon, that without air drag to damp the oscillations of a flag, a flag will continue to oscillate for a long period, that diamond scratched cross hairs on photographic lenses are not black or white paint but instead always appear over the image, that radio transmissions from the moon were by directional S-band microwaves (to penetrate Earth's ionosphere) that were received by directional dishes around the Earth as the planet rotated. It would have been more expensive to "fake" moon landing, than to have the real thing.

[The reason why such conspiracy theories continue is the use of authoritative assertion rather than rational justification for the facts. The prejudiced, physics ignorant, popular media forms a propaganda lobby, analogous to the moon deniers. Media censorship of physics prevents the facts being discussed](#) [<http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html>] :

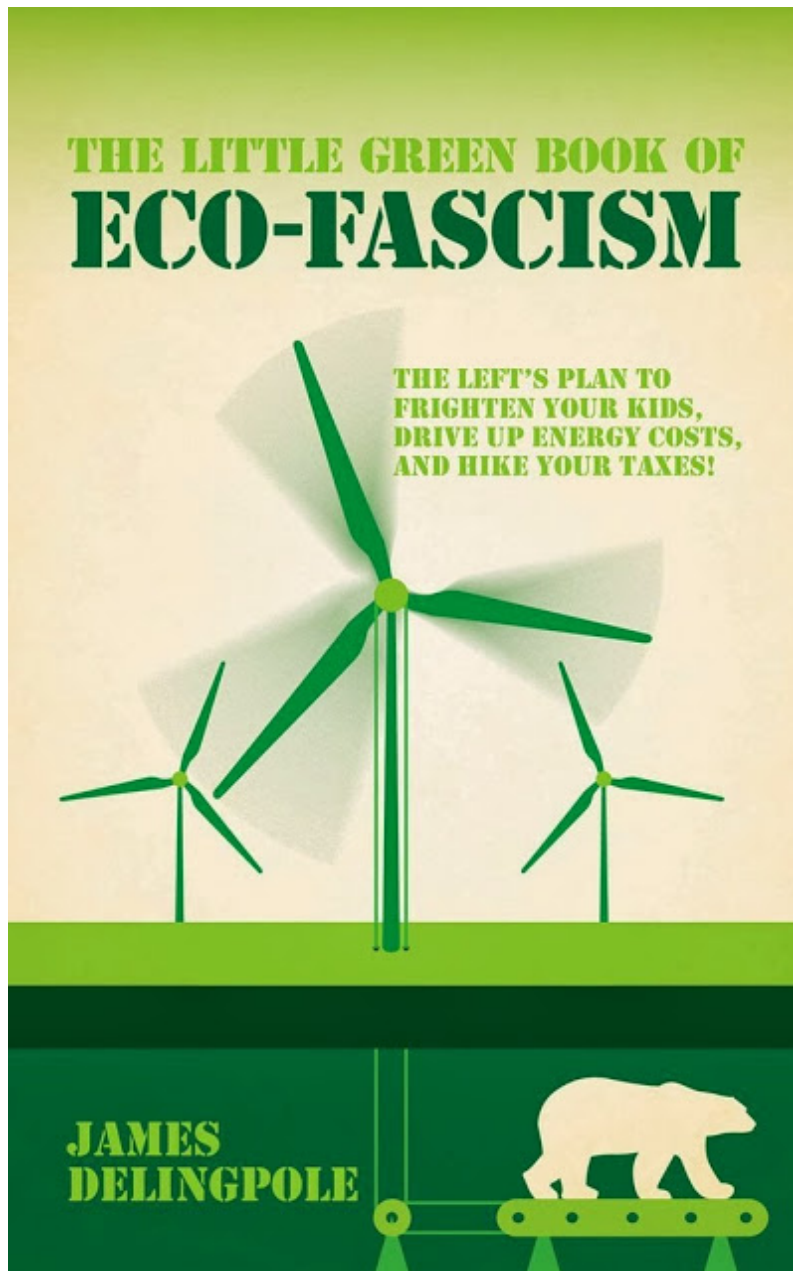
President John F. Kennedy [<http://glasstone.blogspot.co.uk/2011/03/herman-kahn-in-fact-and-fiction-what-he.html>]

Delivered in person before a joint session of Congress [<http://glasstone.blogspot.co.uk/2011/03/herman-kahn-in-fact-and-fiction-what-he.html>]

May 25, 1961: [<http://glasstone.blogspot.co.uk/2011/03/herman-kahn-in-fact-and-fiction-what-he.html>]

“One major element of the national security program which this nation has never squarely faced up to is civil defense. ... Public considerations have been largely characterized by apathy, indifference and skepticism ... this deterrent concept assumes rational calculations by rational men. And the history of this planet, and particularly the history of the 20th century, is sufficient to remind us of the possibilities of an irrational attack, a miscalculation, an accidental war, which cannot be either foreseen or deterred. It is on this basis that civil defense can be readily justifiable - as insurance for the civilian population in case of an enemy miscalculation. It is insurance we trust will never be needed - but insurance which we could never forgive ourselves for foregoing in the event of catastrophe. ... no insurance is cost-free; and every American citizen and his community must decide for themselves whether this form of survival insurance justifies the expenditure of effort, time and money. For myself, I am convinced that it does.”

(Note that this pro-civil defense quotation from Kennedy's moon landing speech has been reversed by many deliberate "pacifist" misquotations, omitting Kennedy's warning against civil defense apathy and irrational attacks by enemies, and trying to imply falsely that Kennedy's words "an irrational attack, a miscalculation, an accidental war, which cannot be either foreseen or deterred" was aimed at the nuclear weapons in the hands of democracy.)



[[http://3.bp.blogspot.com/-](http://3.bp.blogspot.com/-qgGGyKdlthc/UooQDd_pDJI/AAAAAAAAEAE/mXzjM_Q34Ac/s1600/Delingpole.jpg)

[qgGGyKdlthc/UooQDd_pDJI/AAAAAAAAEAE/mXzjM_Q34Ac/s1600/Delingpole.jpg](http://3.bp.blogspot.com/-qgGGyKdlthc/UooQDd_pDJI/AAAAAAAAEAE/mXzjM_Q34Ac/s1600/Delingpole.jpg)]

Delingpole's new book on Ecofascism will be published in December 2013. "Godwin's law" states that we must avoid any analogy of the 1920s Brown shirts to modern fascists, until after a full holocaust in the name of eugenics pseudoscience.

Plausible-sounding consensus lying triumphs over scientific objectivity and facts because it tells people what they want to hear, which is not the truth!

The only reason why significant CO₂ related temperature rises are predicted by all 21 IPCC climate models is that they all contain the same error: assuming that water vapour absorbs sunlight to amplify the CO₂ injection by positive feedback, ignoring the fact that it would gain buoyancy, rise and condense into cloud cover. See the corrected IPCC results in Figures 2 and 3 in my paper: *Failure Evidence for All 21 Ippc Positive-Feedback Climate Models*, <http://vixra.org/pdf/1302.0044v2.pdf> [<http://vixra.org/pdf/1302.0044v2.pdf>]. (There is no significant effect from CO₂, in agreement with air observations over the past 15 years.)

Elizabeth Nickson states on page xiv of her 2012 book *Eco-fascists* (published by HarperCollins): [<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>]

[<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>] "My father

landed on D-day and, at the end of the war, was put in charge of a Nazi camp and told to 'sort these people out.' ... That darkness and history taught me that man defaults to tyranny over and over again, and while the tyranny of the environmental movement in rural America has not reached what its own policy documents say is its ultimate goal – radical population reduction – we cannot any longer ignore that goal and its implications.”
[<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>]

[<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>] On page 1, she summarised the problem in the ancient Roman proverb: [<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>]

[<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>] “Mundus vult decipi, ergo decipiatur.” (*The people wish to be deceived, so let them be deceived.*)
[<http://www.amazon.co.uk/Eco-Fascists-Radical-Conservationists-Destroying-Heritage/dp/0062080032>]

Janet Biehl and Peter Staudenmaier, *Eco-fascism Revisited: Lessons from the German Experience*, New Compass Press, second edition, 2011, pages 10-12:

“In fact, ecological ideas have a history of being distorted ... Nazi ‘ecological’ ideology was used to justify the destruction of European Jewry. ... these reactionary and outright fascist ecologists emphasize the supremacy of the ‘Earth’ over people; evoke ‘feelings’ and intuition at the expense of reason; and uphold a crude sociobiologicistic and even Malthusian biologism. ... More than ever, an ecological commitment requires people today to avoid repeating the errors of the past, lest the ecology movement become absorbed in the mystical and antihumanistic trends that abound today.”

Sir Basil Henry Liddell Hart, *Why Don't We Learn from History?*, PEN Books, 1944; revised edition, Allen and Unwin, 1972:

“If a man reads or hears a criticism of anything in which he has an interest, watch whether his first question is as to its fairness and truth. If he reacts to any such criticism with strong emotion; if he bases his complaint on the ground that it is not in ‘good taste,’ or that it will have a bad effect - in short, if he shows concern with any question except ‘is it true?’ he thereby reveals that his own attitude is unscientific. Likewise if in his turn he judges an idea not on its merits but with reference to the author of it; if he criticizes it as ‘heresy’; if he argues that authority must be right because it is authority; if he takes a particular criticism as a general depreciation; if he confuses opinion with facts; if he claims that any expression of opinion is ‘unquestionable’; if he declares that something will ‘never’ come about, or it is ‘certain’ that any view is right. The path of truth is paved with critical doubt, and lighted by the spirit of objective enquiry... We learn from history that in every age and every clime the majority of people have resented what seems in retrospect to have been purely matter of fact ... **We learn too that nothing has aided the persistence of falsehood, and the evils resulting from it, more than the unwillingness of good people to admit the truth** ... Always the tendency continues to be **shocked** by natural comment, and to **hold certain things too ‘sacred’ to think about**. I can conceive no finer ideal of a man’s life than to face life with clear eyes **instead of stumbling through it like a blind man, an imbecile, or a drunkard – which, in a thinking sense, is the common preference. How rarely does one meet anyone whose first reaction to anything is to ask: ‘is it true?’** Yet, unless that is a man’s natural reaction, it shows that truth is not uppermost in his mind, and unless it is, true progress is unlikely.” (Emphasis added.)

This is precisely the point Herman Kahn made in his 1962 book *Thinking About the Unthinkable* (quoted on 34 of my review of Watermelons, linked here). [\[https://archive.org/stream/Watermelons#page/n33/mode/2up\]](https://archive.org/stream/Watermelons#page/n33/mode/2up) The "protective stupidity" described by Orwell in 1984, where the majority is "*bored or repelled by any train of thought which is capable of leading in a heretical direction,*" is behind all unresolved outstanding problems. Alternative ideas are simply being killed off before they are objectively investigated, by a dictatorship of *status quo*.

In politics, for example, we have *1 election in 4 years which gives a choice between a couple of relatively fashion-dominated parties*, not really "democracy" (democracy in ancient Greece was a *daily* referendum on *issues* rather than a choice of dictators or fashion dominated parties). This election once in 4 years is at least $4 \times 365 = 1,460$ times *less* democracy than in ancient Greece (the factor much is larger if you take account of the actual voting for issues, rather than parties). If ancient Greek democracy (a daily referendum) is the benchmark at 100% democracy, modern "democracy" is less than 0.07% of that benchmark ($1/1,460$). Winston Churchill's defence on 11 November 1947 in the House of Commons (having been kicked out of office in 1945 due to an opposition which promised socialist utopia) is that "Democracy is the worst form of government, except for all those other forms that have been tried from time to time." However, this conflates modern "democracy" (only 0.07% of ancient Greek democracy) with daily referendums, which was genuine democracy. The fact is, 0.07% democracy is closer to 0% democracy, than it is to 100% democracy. It is indeed better to have 0.07% than to have 0% as in a total dictatorship, yet there is a lot of room for improvement. Traditional excuses like technical problems with daily referendums are null with secure internet database technology. If everyone can log in securely to a bank account online, they can do the same to vote.

If democracy is banned from objective discussion, or taboo, then you can see why the effects of nuclear weapons, or the progress in quantum gravity or negative-feedback by water vapour on climate change, are taboo too. The first job of lying revolutionaries is to make their dictatorial power secure, and they do this by the use of censorship to prevent the completely objective discussion of errors, omissions, failures, and particularly alternative (rival) possibilities and solutions:

20 November 2013 update: nutcases in the British Government restrict unclassified fallout data

This blog post (above) includes a summary (including key photographic evidence) of the key points of [UK National Archives document ES 5/262, Operation BUFFALO: target response tests; Biology Group; Part 5; entry of fission products into food chains, 1959, which is now labelled:](#) [\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

[\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

"This record is closed and retained
by Ministry of Defence

[\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

Retained by Department under Section 3.4
[\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

Former references:in its original department: T57/58
[\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

Legal status:Public Record [\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

Closure status:Closed Or Retained Document, Open Description
[\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

Access conditions:Retained by Department under Section 3.4
[\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201)

This is a good example over the secrecy of civil defence *evidence* which is needed to be made widespread for people to understand why civil defence works. This report ES 5/262 is by Dr John F. Loutit and Dr R. Scott Russell, *Operation Buffalo, Part 5, The entry of fission products into food chains*, Atomic Weapons Research Establishment report AWRE-T57/58, May 1959 [\[http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201\]](http://discovery.nationalarchives.gov.uk/SearchUI/Details?uri=C5998201) .

This report gives the scientific basis for the assertion after Operation Buffalo in the unclassified British Government publication "Nuclear Weapons" (1959 and 1974) that there are simple and obvious countermeasures for fallout in food ([British fallout uptake research](#)

began at the 1952 Operation Hurricane nuclear test, but this detailed nuclear test civil defence data was also kept secret from public study! [<https://archive.org/stream/BritishNuclearTestOperationHurricaneDeclassifiedReportsToWinston/HurricaneNuclearTestCivilDefenceData#page/n17/mode/2up>], e.g. peeling crops, and even the normal threshing of wheat after the British-Australian Buffalo-2 nuclear test left only 10% of the fallout radioactivity on the corn, 90% on the chaff, and strontium-90 intake from food was a problem over 1,000 times smaller than iodine-131, which has a short half life (thus higher specific activity, decays/second) and is easily dealt with by preserving milk (powdering, freezing, turning to cheese/ice cream etc.), by simply blocking iodine-131 uptake with KI tablets (yes, there are tablets which block the worst risks of cancer from nuclear fallout, contrary to liars), or by simply moving dairy cattle off pasture grass and onto winter feed while most of the iodine-131 quickly decays with its 8 days radioactive half life (with typical weathering, it disappears even faster - typically an effective half life of only 5 days - from pastures since it is physically removed from grass by wind and rain, in addition to radioactive decay; even in experiments in the dry Nevada desert after nuclear tests [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n367/mode/2up>]).

The two Operation Buffalo fallout effects report authors, John Freeman Loutit [http://en.wikipedia.org/wiki/John_Freeman_Loutit] and Robert Scott Russell [<http://www.britannica.com/EBchecked/topic/513207/Robert-Scott-Russell>], both went on to debunk the longer term effects of fallout hype; see proof here [<https://archive.org/stream/TheEffectsOfTheAtomicBombOnHiroshima#page/n373/mode/2up>] and here [<http://glasstone.blogspot.co.uk/2007/03/effect-of-dose-rate-not-merely-dose-on.html>].

Moreover, their now "closed or retained" report AWRE-T57/58 was reprinted verbatim in technical book form (*Progress in Nuclear Energy. ser. 6. vol. 3, Pergamon Press, 1961*) [<http://www.abebooks.co.uk/Entry-Fission-Products-Food-Chains-Loutit/1036064718/bd>] and was deposited in university libraries worldwide [<http://www.amazon.co.uk/Entry-Fission-Products-Chains-Editors/dp/B0014LAZFY>], as well as being cited in the biological effects chapter in the 1962, 1964 and 1977 edition of Glasstone and Dolan's *Effects of Nuclear Weapons*.

This example of retrospective classification or limitation of vital research by officialdom is typical of the mechanisms by which myths are allowed to perpetuate, totally unchecked by effective credible evidence. Scare-mongering due to keeping facts (evidence credibly debunking war/weapons effects exaggerations) secret, was tried by the British government in the 1920s with gas warfare, where it backfired by allowing exaggerations from liars to be actually rewarded by popular anti-war acclaim, causing the 1930s appeasement policy that led to WWII. The situation today is an exact repeat of the 1920s policy! Truth hurts liars, who scream about rudeness when exposed as quacks who make money by selling lies.

Update on UK National Archives "retained under section 3.4" nonsense (24 November 2013):

It's not only the UK Ministry of Defense that adopts a national security-endangering secrecy with respect to making public at the National Archives the facts on nuclear weapons and civil defence! Here's another example:

"Home Office reaction to book on civil defence ('Beneath the City Streets') by Peter Laurie, 1977, report CDA 74 43/28/3" (UK National Archives document HO 322/777) was retained until 1 January 2005 and then released. (Link here.)
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?uri=C11128169>]

However, the version of this report in the Cabinet Office files at the UK National Archives (document CAB 196/25 [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]) is being retained by the Cabinet Office under section 3.4 of the 1958 Public Records Act for at least the next 10 years, until at least the year 2023! This decision to retain it was made **just two months ago**, on **18 September 2013**! The details of the CAB 196/25 report limitation are reproduced below: [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

Reference: CAB 196/25 [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

Description: Book on civil defence by Peter Laurie ('Beneath the City Streets') [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

Date: 1970 Mar 03 - 1970 Oct 26 [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

Held by: Creating government department or its successor, not available at the The National Archives [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

Former references in its original department: M/1/19
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

Legal status: Public Record [<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]
[<http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675>]

ves.gov.uk/SearchUI/details?
Uri=C11178675]

Closure status:Closed Or Retained Document, Open Description
[http://discovery.nationalarchi [http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675]
ves.gov.uk/SearchUI/details?
Uri=C11178675]

Access conditions:Retained by Department under Section 3.4
[http://discovery.nationalarchi [http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675]
ves.gov.uk/SearchUI/details?
Uri=C11178675]

Closure criterion:Retained in departments on security or other specified grounds
[http://discovery.nationalarchi [http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675]
ves.gov.uk/SearchUI/details?
Uri=C11178675]

Lord chancellor'sLCI 113 - Series containing retention instruments
instrument: [http://discovery.nationalarchives.gov.uk/SearchUI/details?Uri=C11178675]
[http://discovery.nationalarchi
ves.gov.uk/SearchUI/details?
Uri=C11178675]

LCI signed date:2013 September 18 [http://discovery.nationalarchives.gov.uk/SearchUI/details?
[http://discovery.nationalarchi Uri=C11178675]
ves.gov.uk/SearchUI/details?
Uri=C11178675]

Reconsideration due in:2023 [http://discovery.nationalarchives.gov.uk/SearchUI/details?
[http://discovery.nationalarchi Uri=C11178675]
ves.gov.uk/SearchUI/details?
Uri=C11178675]

Appendix A

This article appeared originally in the *New Scientist*, 13 July 1978.

Can a secret be SECRET if it isn't actually secret?

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Beneath the City Streets

fall-out might delay this essential work. But by 1967 it was mostly done. The Home Office even took a series of whole-page advertisements in national papers to boast of its achievements. Although civil defence is an emotive subject, the reality is banal enough, and it seems to me that some intelligent people at the Home Office calculated that my book was accurate and unsensational enough to allay paranoia among the public at large without being penetrating enough to help the Russians. One must always remember that while security is seen from the outside to veil exciting secrets, from inside government it is often an expensive and demoralizing nuisance (see Margaret Gowing, *Independence and Deterrence*, vol. 2, Macmillan). If my book made it possible to relax some security in this area, then it was perhaps all to the good.

[[http://1.bp.blogspot.com/-a4aVI6tLX-](http://1.bp.blogspot.com/-a4aVI6tLX-8/UpJFvN8QWII/AAAAAAAAEAO/p_d9RDTfr1k/s1600/Peter+Laurie+Beneath+the+city+streets.JPG)

[8/UpJFvN8QWII/AAAAAAAAEAO/p_d9RDTfr1k/s1600/Peter+Laurie+Beneath+the+city+streets.JPG](http://1.bp.blogspot.com/-a4aVI6tLX-8/UpJFvN8QWII/AAAAAAAAEAO/p_d9RDTfr1k/s1600/Peter+Laurie+Beneath+the+city+streets.JPG)]

Above: Peter Laurie's "Beneath the city streets" (first edition 1970 published by Allen Lane, [http://books.google.co.uk/books?id=zAf-uwRCdXwC&printsec=frontcover&source=gbg_summary_r&cad=0#v=onepage&q&f=false] revised 1979 edition published by Panther [http://books.google.co.uk/books?id=zAf-uwRCdXwC&printsec=frontcover&source=gbg_summary_r&cad=0#v=onepage&q&f=true]

, including as Appendix A his *New Scientist* article of 13 July 1978: "Can a secret be secret if it isn't actually secret?" [<http://books.google.co.uk/books?id=PhxDVgkDfuwC&pg=PA96#v=onepage&q&f=false>]

) was based in part with discussions with the Home Office Scientific Advisory Branch nuclear weapons effects experts for civil defence. As a mathematics graduate, Laurie began researching the subject of nuclear weapons and civil defence for a Sunday Times magazine article in 1967 (the editor of the Sunday Times wanted to know whether the BBC film "The War Game" nuclear effects portrayal was all lies - it was, falsely claiming to rely on data from Nevada nuclear tests done in 1954, a year of course no Nevada nuclear tests occurred, and falsely claiming that the firestorm was predicted by Glasstone's 1964 Effects of Nuclear Weapons, which of course was quite the opposite - Glasstone repudiated the firestorm even for most American wooden cities, based on Encore nuclear test evidence [<http://glasstone.blogspot.co.uk/2010/02/rescue-of-trapped-survivors-in-world.html>]) before the UK Civil Defence Corps was closed down

by Labour in March 1968 (after anti-civil defence propaganda which exaggerated nuclear effects).

The UK Home Office scientists Laurie spoke to (who in 1967 included George Stanbury and Frank Pavry, both veterans of Britain's first nuclear test explosion at Monte Bello in 1952, where they successfully proved the validity of cheap World War II civil defence shelters against nuclear blast, heat and nuclear radiation [<https://archive.org/stream/BritishNuclearTestOperationHurricaneDeclassifiedReportsToWinston/HurricaneNuclearTestCivilDefenceData#page/n17/mode/2up>] ; Pavry had also surveyed shelters surviving in Hiroshima and Nagasaki in 1945 since he was part of the British Mission to Japan [<https://archive.org/stream/BritishNuclearTestOperationHurricaneDeclassifiedReportsToWinston/HurricaneNuclearTestCivilDefenceData#page/n87/mode/2up>]) explained the "shadowing effect" of modern hi-rise city skylines (unlike Hiroshima or the Nevada desert) as the thermal burns and thermal firestorm/nuclear winter prevention mechanism [<https://archive.org/stream/BritishNuclearTestOperationHurricaneDeclassifiedReportsToWinston/HurricaneNuclearTestCivilDefenceData#page/n141/mode/2up>] :

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Beneath the City Streets

1979 edition

As part of this process, it seems that the effects of nuclear weapons have been considerably exaggerated. An H-bomb has not quite the all-destroying properties that most people assume. I was surprised when I saw the figures; and depending on whether or not he too is surprised, the reader may be willing to believe that the H-bomb has been oversold, and perhaps deliberately oversold, as a weapon of current politics. Given enough H-bombs, it is true, a vast amount of damage can be done, but there are definite constraints on this damage; there are limits to the number that can be killed. This is perhaps not a thought that our rulers care to emphasize.

[[http://1.bp.blogspot.com/-](http://1.bp.blogspot.com/-R3yb8J0Cipk/UpJH9lbim5I/AAAAAAAAEA0/S9_kE00ESEM/s1600/Peter+Laurie+Beneath+the+city+streets+b.JPG)

[R3yb8J0Cipk/UpJH9lbim5I/AAAAAAAAEA0/S9_kE00ESEM/s1600/Peter+Laurie+Beneath+the+city+streets+b.JPG](http://1.bp.blogspot.com/-R3yb8J0Cipk/UpJH9lbim5I/AAAAAAAAEA0/S9_kE00ESEM/s1600/Peter+Laurie+Beneath+the+city+streets+b.JPG)]

It is odd how in this blackmail operation pacifists work directly with the military. For instance, my conclusions in Chapter 8 that it is not impossible that Britain might survive a nuclear war, and that in some ways it might have some beneficial effects, were received with horror by the more liberal, anti-war critics. They take the position that nuclear war is so frightful it is heresy even to suggest that it may not be the end of all things. Mr Sartori wrote in *Nature* (8 January 1971): 'Fostering such complacency can only make the public more receptive to the idea that initiation of a nuclear war by the West is a rational possibility to be entertained under some circumstances.'

Hence: lie to the public! What tosh.

**1930s war effects
lies caused WWII!**

The impact of latent nuclear war on democracy 277

A chapter on the Resistance. 'All those who participate in the Resistance risk their lives. This is not a game, it is a pitiless war.'

**- Debunking the idea of
resisting terrorists without
force (quoted from the Swiss
300-page long householder's
civil defence handbook)**

[[http://3.bp.blogspot.com/-](http://3.bp.blogspot.com/-ubSkUapbdww/UpStK8jmp0I/AAAAAAAAEBk/H7dfxrGGjOA/s1600/pacifists+who+caused+world+wars.JPG)

[ubSkUapbdww/UpStK8jmp0I/AAAAAAAAEBk/H7dfxrGGjOA/s1600/pacifists+who+caused+world+wars.JPG](http://3.bp.blogspot.com/-ubSkUapbdww/UpStK8jmp0I/AAAAAAAAEBk/H7dfxrGGjOA/s1600/pacifists+who+caused+world+wars.JPG)]

Can a Secret be SECRET if it isn't actually secret ?

As the Colonel B excitements have shown, there is something drastically wrong with the workings of Britain's Official Secrets Act (OSA) and the conflicting ideas in the minds of government, press and MPs about what is, and ought to be, secret. This article presents an account of an individual experience of the Act's workings—or rather, non-workings—in the hope that it may be useful to others in a like predicament, and may contribute to the reformation of an unsatisfactory law

Peter Laurie

is a freelance journalist
and author of *Beneath
the City Streets:
Private Enquiry into
the Nuclear
Preoccupations of
Government* (Penguin)

New Scientist 13 July 1978

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In 1967 Peter Watkins made a film for the BBC called *The War Game* which showed, rather too realistically for many stomachs, just what nuclear war would feel like for the unwilling civilian participant. A famous scene portrayed a police firing squad executing looters in a British city. The *Sunday Times Magazine* asked me to find out how far Watkins's nightmare scenario corresponded with government planning. After a little prodding, the Home Office revealed a good deal more of its secret civil defence system. Even after the article had been published, I remained interested in the subject, and tried to answer questions the Home Office had raised in my mind, but had not answered. After a good deal of research, using openly published material and what had already been given me by the Home Office, I wrote a book called *Beneath the City Streets* (Allen Lane 1969, Penguin 1970). Before publication, the manuscript was sent to James Callaghan, then Home Secretary, and returned without comment. Although

[http://3.bp.blogspot.com/-0qYSe17tDWA/UpJOTr7qhKI/AAAAAAAAEBE/wtYFERg_ps/s1600/Peter+Laurie+Beneath+the+city+streets+c.JPG]

Above: "The War Game", a 1965 Peter Watkins BBC propaganda film, is debunked at the previous post linked [here](http://glasstone.blogspot.co.uk/2010/02/rescue-of-trapped-survivors-in-world.html) [http://glasstone.blogspot.co.uk/2010/02/rescue-of-trapped-survivors-in-world.html] . See also our discussion of Phil Bolsover's CND "Civil Defence - the Cruellest Confidence Trick", linked [here](http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html) [http://glasstone.blogspot.co.uk/2013/08/secret-british-wwii-data-dr-d-g.html] .

31 December 2013 update: statistics for monthly visitors to this blog (see graph below: total visitors from May 2007 to Dec 2013 is over 550,000, of whom 9.7% visited the Glasstone and Dolan page [http://glasstone.blogspot.co.uk/2006/03/samuel-glasstone-and-philip-j-dolan.html])

Declassified effects of nuclear weapons ... • Stats : May 2007 – December 2013



Pageviews today	373
Pageviews yesterday	449
Pageviews last month	15,770
Pageviews all time history	550,166

[Don't track your own pageviews](#)

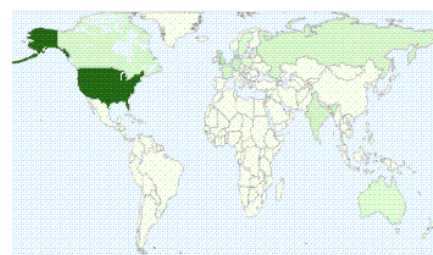
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Entry	Pageviews
Samuel Glasstone and Philip J. Dolan Mar 29, 2006, 27 comments	53347
EMP radiation from nuclear space ... Mar 29, 2006, 23 comments	51324
Declassified data on structures exp... May 3, 2011, 2 comments	25661
U.K. Home Office Scientific Advisor... Aug 1, 2006, 26 comments	19926
How weapons and war effects lies f... Mar 1, 2010, 9 comments	17921

Audience

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[http://3.bp.blogspot.com/-1VFeRXS_0UA/UsNLIiZY6yI/AAAAAAAAAEI0/Fe_6cTkNEf/s1600/Glasstone.com+blog+stats+as+of+31+Dec+2013.GIF]

“In the wake of the Cultural Revolution and now of the recession I observe a mounting pressure to co-operate and to promote ‘teamwork’. **For its anti-individualistic streak, such a drive is of course highly suspect; some people may not be so sensitive to it, but having seen the Hitlerjugend in action suffices for the rest of your life to be very wary of ‘team spirit’. Very.** I have even read one text that argued that university scientists should co-operate more in order to become more competitive..... Bureaucracies are in favour of teamwork because a few groups are easier to control than a large number of rugged individuals. Granting agencies are in favour of supporting large established organizations rather than individual researchers, because the support of the latter, though much cheaper, is felt to be more risky; it also requires more thinking per dollar funding. Teamwork is also promoted because it is supposed to be more efficient, though in general this hope is not justified. ... the co-operation seems more to force the researchers to broaden their outlook than to increase the efficiency of the research. ... everybody complains about the amount of red tape ... Why should a vigorous, flourishing department seek co-operation when it is doing just fine all by itself? It is the weak departments that are more tempted to seek each other’s support and to believe that there is might in numbers. But such co-operation is of course based on the theory that, when you tie two stones together, the combination will float.”
[<http://www.cs.utexas.edu/users/EWD/ewd11xx/EWD1175.PDF>]

[<http://www.cs.utexas.edu/users/EWD/ewd11xx/EWD1175.PDF>] - Professor Edsger Wybe Dijkstra (1930-2002), *The strengths of the academic enterprise*, EWD 1175, University of Texas, 9 February 1994.
[<http://www.cs.utexas.edu/users/EWD/ewd11xx/EWD1175.PDF>]

Posted 25th October 2013 by [nige](#)



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